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A Case Study of the Relationship Between Professional Learning Communities and Teacher Efficacy

Rebecca Carter

Concordia University - Portland

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Concordia University- Portland

College of Education

Doctorate of Education Program

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A Case Study of the Relationship Between Professional Learning Communities and Teacher
Efficacy

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College of Education

Dissertation submitted to the Faculty of the College of Education

in partial fulfillment of the requirements for the degree of

Doctor of Education in

Education Administration

Julie M. McCann, Ph.D., Faculty Chair Dissertation Committee

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2017

Abstract

Traditionally, professional development opportunities to improve teaching and learning have been practiced through isolated events that do not allow learning to happen within the context of the school. Research showed schools are beginning to implement professional learning communities. This descriptive single case study addressed the questions: (a) What are teachers' perceptions regarding the relationship between a professional learning community and teacher efficacy? and (b) From teachers' perspectives, in what ways, if any, do professional learning communities impact teacher efficacy? The case study examined the relationship between professional learning communities and teacher efficacy as well as the impact of professional learning communities on teacher efficacy from the teachers' perspectives. Data from the Professional Learning Community Assessment-Revised (PCLA-R), the Teacher Self-Efficacy Scale (TSES), and participant interviews and reflections were collected, analyzed, and discussed. The design of this study focused on studying a particular phenomenon within international schools offering the Primary Years Programme (PYP) in which the teacher population is diverse. Teachers discussed how their participation in a PLC helped to build their capacity as teachers, build confidence, impacted student achievement, relieved feelings of isolation, and supported their professional learning.

Keywords: education, teacher efficacy, professional learning communities, educational leaders, leadership

Dedication

To my parents, Robert and Rose, who instilled in me the importance of education and the value of teaching others, and for ensuring that I believed that I could do anything I set my mind to do.

Acknowledgements

My journey has taken twists and turns, some expected and some unexpected, but I was not on the journey alone. Throughout this process, I had support and encouragement and without this I may not have made it to the end.

For their patience, encouragement, and steadfast belief in their mother, I would like to thank my children, Yasmine, Kais, and Micah. You have sacrificed time, endured my frustrations, and took over chores so that I could work on my research and writing. Knowing that I was a role model for you to see how dedication, commitment and hard work will pay off kept me pushing forward when I doubted I would fulfill this goal.

I would also like to thank my committee chair, Dr. Julie McCann, for always having words of encouragement and keeping me on a timeline even through the times I faced personal challenges. Her patience is endless and her advice was a tremendous support.

Thank you also goes to my dissertation committee members, Dr. Debra Lay and Dr. Edward Kim, whose invaluable advice and feedback opened my thinking. They put in odd hours with my global time zones throughout the process and always offered wisdom and encouragement.

Finally, I am thankful for the teachers who offered to participate in this study and especially for those teachers who were selected and contributed their perspectives. Each one of them was open, honest and gave up not only their time to share their thoughts, but their ideas to improve learning opportunities for fellow teachers.

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Chapter 1: Introduction

Background

Teachers, administrators, researchers, and policymakers agree that the quality of teaching is an integral factor in student growth (Leigh & Mead, 2005) and that it is teacher quality that is the key to improving schools (Annenberg, 2004; Marzano, Pickering, & Pollock, 2001). It is essential that school administrators and teachers put forth the effort to improve teaching and learning and ensure that teachers grow professionally (Easton, 2011; Michelman, 2012). While many school administrators look to develop strategies to improve staff development techniques, effective learning organizations require individuals to create a professional learning environment to build the collective capacity of the organization (DuFour & Eaker, 1998; Fullan, 1993; Servage, 2008).

Progress and change for an educational system and the future success of students depends on the professional growth of teachers. Traditionally, professional development opportunities to improve teaching and learning have been practiced through stand-alone workshops or conferences which are isolated events that do not allow learning to happen within the context of the school. This method of professional development is not how teachers learn best (Avalos, 2010; O'Sullivan, 2002; Ross & Bruce, 2007). Teachers learn best when they learn with other educators, share ideas, and collaboratively share ideas with one another (Avalos, 2010). Teachers must solve problems together and engage as a team with a focus on the needs of their students. Current literature discusses the role of professional learning communities (PLCs), their benefits and the role of the administrators in the implementation of professional learning communities (Darling-Hammond, 2007; DuFour, Eaker, & DuFour, 2005; Hord & Sommers, 2008; Hord, 1997; Lujan & Day, 2010). A factor that has been neglected by comparison is

whether or not PLCs increase teacher self-efficacy and teachers' beliefs regarding how PLCs promote professional growth and impact their teaching. There is limited research on professional learning communities that includes the perspective of teachers.

School improvement directly depends on teacher development and the improvement of teachers' instructional capacity and practice (Hord, 1997). If changes and improvements are not implemented into the classroom, there will be little change for either teachers or students.

Teachers have a tremendous power to either move an initiative forward or to influence its failure through the lack of implementation. This is one of the reasons I chose to further study teachers' perceptions of the professional learning community on self-efficacy and its impact on teaching and learning. PLCs are a powerful way of working together. Since it is teachers who are the root of the PLC, it is important to understand teachers' perceptions of professional learning communities as a means of increase in their self-efficacy. This information will provide support for school to move beyond simply implementation of the current set of reform initiatives, and instead development strategies to respond to current and future needs to improve teacher practice (Leithwood & Louis 1998).

Professional learning communities are organizations that consist of educational professionals who share goals and collaboratively work together to support learning and achieve the goals of the PLC. Using collective inquiry to identify and analyze a problem, professional learning communities work interdependently to improve professional practice and support student achievement. This process of continual, job-embedded learning impacts the culture of the school so that the community has shared goals, is focused on student learning, and continues through a cyclic process to improve practice (DuFour, DuFour, Eaker, & Many 2006). This process goes beyond simply meeting with other professionals and then going back to 'business

as usual'. Professional learning communities are not staff meetings or lectures. Professional learning communities actively engage teachers to collaborate on improving teaching practice to meet the needs of students (Easton, 2011). PLCs must focus on benefitting students, shared vision, and a collaborative team effort (DuFour, Eaker, & DuFour, 2005; Hord & Sommers, 2008; Lujan & Day, 2010). Additionally, professional learning communities involve the entire organization, focusing on a shared vision, with smaller, collaborative teams working together to achieve the goals of the PLC.

With a focus on student achievement by all team members, school administrators seek ways to improve teaching practice through sustainable professional development that promotes collaboration, mentoring and learning communities in order to improve teaching practice and thus student achievement (Breault, 2010; Darling-Hammond, 1996, 2007; Loucks et al., 2003; Starnes, Saderholm, & Webb, 2010). By including the perspectives of the individuals involved in the professional learning communities, the data collected from this study can be added to existing knowledge from experts and administrators. Further improvements to the development of professional learning communities can be made based on these findings. According to DuFour, Eaker, and DuFour (2005) and Hord and Sommers (2008), it is staff that work within a PLC which affects the learning community; therefore, examining teachers' perceptions of the impact of professional learning communities will add to current literature.

Context

According to extensive research, the classroom teacher is the most important factor affecting student learning (Everston & Weinstein, 2013; Hattie, 2009; McCaffrey, Lockwood, Koretz, & Hamilton, 2003; Rivkin, Hanushek, & Kain, 2005; Rowan, Correnti, & Miller, 2002). As leading experts provide more data on the impact of professional learning communities

(DuFour, Eaker & DuFour, 2005; Hord & Sommers, 2008), educators are realizing the importance of a collaborative culture to increase teacher efficacy and develop professional growth. Collaboration is the practice of team members working together to solve a problem. It involves sharing of ideas, making compromises, and joining together as a collective group on a given task. The benefits of shared collaborative experiences benefit teacher learning and their professional development (Wood, 2007). Teachers share intellect, ideas, and resources to benefit their own learning as well as student learning. Morgan (2010) asserted that collaboration is a significant method of professional development. The collaborative nature of professional learning communities can support self-efficacy and growth among teachers.

This study on teachers' perceptions of the impact of professional learning communities on self-efficacy includes international schools located in the South Asia region. Teachers in international schools are from different countries and have a varied set of perspectives and experiences thus allowing for a more heterogeneous participant group from a wide variety of backgrounds. By using teachers in international schools as participants, the case study is able to utilize these various experiences and perspectives to gain an intricate understanding regarding professional learning communities and their impact on teacher efficacy.

History

Professional development in education has historically relied on stand-alone training in which either teachers attend workshops outside their school setting or presenters are brought in for one or two-day training workshops. "The time and opportunities essential to intense, sustained professional development with regular follow-up and reinforcement are simply not in place in most contexts, as evidenced by the short duration of most professional development activities" (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009, p. 27).

Traditionally, many administrators have utilized an outside expert for one-time seminars or short workshops on a particular topic (DiPaola & Hoy, 2014). According to Darling-Hammond (1996), Hord (1995) and Guskey (2006), this type of structure does not promote professional growth or teacher self-efficacy. Instead it promotes isolation and hinders teachers from improving teaching practice. Teachers gain a better understanding of their practice when the learning is in and from practice (Ball & Cohen, 1999). Short workshops often do not allow for in-depth interactions among teachers and a job-embedded approach offers time for this depth and for sustainable, professional interaction (Penuel et al., 2007; Wei et al., 2009).

The concept of learning communities began in the 1960s in part because of these feelings of isolation (Hord & Sommers, 2008). These initial learning communities were primarily modeled after student learning rather than using methods for adult learners. By the 1980s more research on PLCs had been completed. In 1989, a study of 78 schools was conducted which showed its most effective teaching is a collective endeavor that needs collaboration among teachers to make gains. The research of Newmann and Wehlage (1997) concluded schools that function as professional learning communities are the most successful. As more research became available regarding the benefits of teacher collaboration on student achievement, practices in the implementation of professional learning communities developed into a model for professional adult learning. Since then, additional research has confirmed the successful implementation of professional learning communities has a positive impact on student learning (Buysse, Sparkman, & Wesley, 2003; DuFour, DuFour, & Eaker, 2005, 2008; Hickman, Schrimpf, & Wedlock, 2009; Schmoker, 2005).

Conceptual Framework

Teacher self-efficacy. The purpose of this study is to examine teachers' perceptions of the impact of professional learning communities on teacher self-efficacy. Because teachers have the greatest impact on student learning, the beliefs of teachers are significant in implementing successful change within the school (Davis & Andrzejewski, 2003; Kalin & Zuljan, 2007). In fact, teacher efficacy is considered to be one of the key influences of professional behaviors (Klassen, Tze, Betts, & Gordon, 2011). Teachers who have a high sense of self-efficacy readily try new ideas and explore new ways to meet student needs. With teacher self-efficacy holding such a significant role in teaching quality and professional growth, ensuring that professional learning communities are utilized in a manner that positively develops this efficacy is key.

Professional growth. For teachers to sustain a high level of quality teaching, opportunities for continuous professional growth must be provided to them (Guskey, 2003). Schools that provide opportunities for growth see increases in student learning (DuFour, Eaker, & DuFour, 2005; Louis & Marks, 1998). The professional growth of teachers is integral to increasing their self-efficacy and improving schools. According to Fullan (1996), administrative support of professional learning communities supports a PLC becoming a powerful tool in the improvement of teaching practice. This study will examine teachers' perceptions of PLCs as well. For school improvement to occur, an effective process for professional growth and learning must be established which is supported by teacher input and collaboration (Danielson, 2002; Darling-Hammond, 1998; Linder, Post & Calabrese, 2012).

Collaboration. Professional conversations and collaborative work are the cornerstone of professional development. There are many forms of collaboration. In this study, collaboration is educators engaging in work toward a shared goal. The goal is identified so that teachers collectively inquire into possible solutions and construct knowledge together. In this systematic process, teachers meet, discuss, share best practices, and solve problems to benefit and affect student achievement. Teachers shift from working in isolation to working purposefully with other teachers to improve teaching practice and reach shared goals (DuFour, Eaker, & DuFour, 2005). Through teacher collaboration, positive professional relationships and trust can be built through shared problem-solving and the professional support of one another. This peer interaction and professional conversation supports teachers in their professional growth, which increases their self-efficacy (Strahan, 2003) and teachers develop a shared sense of responsibility (Williams, 2010). Highly effective teachers share their knowledge and expertise with other teachers, which increases student learning (Hord & Sommers, 2008).

Schools that develop a culture that supports collaboration are often successful in improving student learning (Waldron & McLeskey, 2010). Professional learning communities support this critical skill and provide opportunities for educators to collaborate and share experiences of best practice rather than work in isolation. These collaborative experiences that include sharing of ideas, professional conversations of support of one another and shared goals are a significant methodology to effective professional development of teachers (Morgan, 2010).

Statement of the Problem

Many current professional development practices center around sending teachers to professional workshops outside their own school as the primary form of professional development (Black, 1998; Joyce & Showers, 2002; Linder, Post & Calabrese, 2012).

Workshops often do not include time to reflect and evaluate the learning that took place (Schmoker, 2004). Additionally, teachers return with knowledge constructed outside the context of their school, which may cause a mismatch for the school. While this provides some professional growth for teachers and supports learning, it is more beneficial to develop professional capacity from within the school (Bertsch, 2012; Hemphil & Duffield, 2007).

“Enabling educational systems to achieve on a wide scale the kind of teaching that has a substantial impact on student learning requires much more intensive and effective professional learning than has traditionally been available” (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009, p. 2). It is important that teachers within a school community work and learn together to make positive changes (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). Collaboration allows teachers to construct meaning together whether within the same grade level or across different grade levels.

Schools are beginning to take a new approach toward professional development practices and move to a job-embedded approach by implementing professional learning communities. In successful learning communities, effective communication, shared mission, and shared decision-making is fostered. These professional conversations and social interactions give teachers the opportunity to critically think about how to improve teaching practice and student learning (Bertsch, 2012; Bunker, 2008). It is the teachers who must implement changes to teaching practices. Input from teachers and the influence of their beliefs on the implementation of PLCs is invaluable and integral to successful change (Davis & Andrzejewski, 2003; Funda, 2009; Griffiths, Gore, & Ladwig, 2006). Teachers’ response and effort to the implementation of the PLC contributes to the sustainability of the PLC (DuFour, DuFour, & Eaker, 2004; Hipp & Huffman, 2003; Strahan, 2003).

Purpose of the Study

Most educational leaders agree that to make improvements and reform within a school, teachers must be provided with professional growth and learning opportunities (DiPaola & Hoy, 2014) and, while experts agree that professional learning communities provide these opportunities, there is far less research conducted around teachers' beliefs on professional learning communities. Change and growth is most effective when supported by the teachers as well as the administrators within schools (Sweeney, 2010).

The intent of the case study is to gain information regarding the impact, if any, that professional learning communities have on teacher self-efficacy to discover new ways to increase their self-efficacy. A qualitative case study will be conducted to gather data from teachers' responses to the Professional Learning Community Assessment-Revised (PLCA-R) and the Teacher Self-Efficacy Scale (TSES), data gathered through teachers' responses to a set of questions in an individual interview and professional conversation and data gathered from individual reflections of their participation in professional learning communities.

Research Questions

Although there is a significant amount of research in the field of effective professional learning communities, there is limited research conducted on teachers' perceptions of the impact of professional learning communities on teacher self-efficacy. By examining teachers' perceptions on PLCs, I hope to gain additional insight into the relationship between professional learning communities and teacher self-efficacy. The following questions were developed to guide this research:

What are teachers' perceptions regarding the relationship between a professional learning community and teacher efficacy?

The secondary question is:

From teachers' perspectives, in what ways, if any, do professional learning communities impact teacher efficacy?

Definition of Key Terms

Collaboration. A systematic approach by which a group of people interdependently work together to achieve a common goal and to analyze and impact professional practice to improve individual and collective results (Dufour, 2006).

Collective inquiry. A process in which participants in a Professional Learning Community clarify questions the group wishes to explore and builds a shared knowledge (DuFour, DuFour, Eaker, & Many, 2006).

Constructivist. An approach to learning that includes collaboration and the development of meaning among teachers. (Darling-Hammond, 1993; Fullan, 2005).

Professional development. Opportunities for teachers to learn and develop as professionals (Guskey, 2003; National Staff Development Council, 2007).

Professional growth. A gain in understanding of one's profession and the increased ability to apply this knowledge. Learning that promotes the individual and positively impacts student learning (Guskey, 2003).

Professional learning community (PLC). A group of professionals engaged in ongoing collaborative learning to learn, share, and implement what has been learned within a supportive environment. The attributes of the community may include shared values and vision, shared leadership, collective learning, supportive conditions, and a shared understanding of best practice (Hord, 1997). Professional learning communities function under the assumption that continuous job-embedded learning for educators is the key to improved learning for students (DuFour,

DuFour, Eaker, & Many, 2006).

Shared vision. The purpose that members of a community want to create or accomplish which is derived by all members of the community. The founding purpose of the community (Hirsh & Hord, 2008).

Teacher efficacy. Teachers' beliefs or conviction that they can influence how well students learn (Guskey, 1998; Hoy, 2000).

Assumptions, Limitations, and Delimitations

Assumptions. Within my study methodology, I will explain the concept of a professional learning community in the selection process and will assume that participants have this basic understanding and knowledge of professional learning communities. It is also assumed that participants are truthful in being part of a professional learning community and in answering questions on both surveys. Additionally, I must assume that participants will openly and truthfully answer the questions in the individual interview and provide an honest reflection of their experience in professional learning communities.

Limitations. The limitations of this study involve the honest and detailed responses of the participants. Two of the instruments that were used were surveys, which have the disadvantage of a closed response from the participants as the surveys contain closed-ended questions. These instruments also depend on the interpretation of the questions by the participants, which may affect results.

Delimitations. Delimitations of the study must also be acknowledged. I have chosen to include a small number of participants, a maximum of five participants. The study is also limited to a low number of schools and only participants who teach at the Elementary age, Pre-Kindergarten (age 4) to Grade 5 (age 12). The limited transferability of these case study results

to other school districts is acknowledged (Yin, 2003). According to Yin, the purpose of case study research is not to develop samples to generalize to other populations but to address a theory and allow that theory to be explored further.

Another delimitation is that the participants come from one type of school. The international schools in this study use the International Baccalaureate school curriculum known as the Primary Years Programme (PYP). Only teachers from this type of school will be involved in the research and only certified teachers will be selected as participants. The study relies on each teacher's perception of their own professional growth and efficacy, and will be conducted at one moment in time rather than growth from prolonged participation in professional learning communities.

Summary

This narrative case study will seek to examine the perceptions of five teachers of the relationship between professional learning communities and teacher self-efficacy and the impact. The study will include teachers working within International Baccalaureate Schools (IB) offering the Primary Years Programme (PYP) that implement PLCs.

Within this chapter, the background of professional learning communities, introduction to the study and the rationale for the study has been discussed. Additionally, the context of the study and its conceptual framework has also been discussed. Chapter 1 also included a statement of the problem, key terms, research questions and assumptions, limitations, and delimitations of the study.

Chapter 2: Literature Review

Introduction

The purpose of this literature review is to provide information about the different models of professional learning communities (PLCs), critically examine the elements that can positively or negatively affect implementation of effective PLCs and consider the impact that PLCs have on teacher efficacy, which can lead to higher student achievement. Traditionally, professional development opportunities to improve teaching and learning have been practiced through workshops or conferences (Ball, 1996; Darling-Hammond, 1996; Garet, Porter, Desimone, Birman & Yoon, 2001; Graham, 2007; Little, 1994) as isolated events, which have been proven to be unsustainable (Ball, 1996; Darling-Hammond, 1996; Garet et al., 2001; Little, 1994; Sparks, 1984). School administrators now seek ways to develop sustainable professional development that promotes collaboration and learning communities to improve teaching practice and thus student achievement (Darling-Hammond, 1996, Loucks et al., 2003; Loucks-Horsley, Hewson, & Stiles, 1998). In this literature review, the implementation of professional learning communities is examined as a professional development method that incorporates job-embedded learning communities with mentoring opportunities that encourage collaboration.

The term *professional learning community* has several definitions. For the purpose of this study and literature review, a professional learning community (PLC) is defined as a group of school staff who are committed to a shared vision and collaboratively learn together to improve teaching and learning to increase student achievement.

A professional learning community is made up of educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve. Professional learning communities operate under the

assumption that the key to improved learning for students is continuous, job-embedded learning for educators (Dufour et al., 2006, p. 3).

This literature review showed current knowledge and information about developing and implementing professional learning communities, identified typical professional development structures, examined the common elements within several models, and discussed the impact PLCs have on professional growth and teacher self-efficacy. Researchers have identified the elements, discussed in this chapter, necessary for an organization to function as a learning community (Dufour, 2004; Hord, 1997; Lambert, 2003). Job-embedded professional learning helps teachers become more effective, however, it is essential the focus is on adult learning styles and the PLC is implemented effectively (Easton, 2011). Senge (1990) defined learning organizations as “organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspirations are set free, and where people are continually learning how to learn together” (p. 1). Senge (2006), whose work began in the study of corporations as learning organizations, took an interest in the work of schools, and set out to influence schools. His work stressed staff engagement in collaborative activities that included the development of a shared vision, identifying problems, and working together to find a solution (Senge et al., 2012). Fullan (1991) added to these ideas and suggested this work be woven into the regular routine of teachers’ work.

This type of ongoing professional development allows teachers to learn within the context of their own school or district. Judith Warren Little, as cited in Schmoker (2005) stated:

True learning communities...are characterized by disciplined, professional collaboration and ongoing assessment. This is the surest, most promising route to better school

performance, and the reasons are compelling. Teachers do not learn best from outside experts or by attending conferences or implementing ‘programs’ installed by outsiders. Teachers learn best from other teachers in settings where they literally teach each other the art of teaching. For this to happen, collaboration had to occur in a radically different way: . . . Productive collaboration could not be casual or general; it was instead characterized by: Frequent, continuous, and increasingly concrete and precise talk about teaching practice...adequate to the complexities of teaching and capable of distinguishing one practice and its virtue from another (p. 141–142).

Theoretically then, effective implementation of PLCs creates a more collaborative culture within the school and this increase in collaboration and discussion of professional practice, fosters teachers collaborative work toward a shared vision to improve teaching and learning within the school. This shift toward job-embedded learning creates a more results-driven professional development program focused on student learning (Roberts & Pruitt, 2003).

Conceptual Framework

The primary purpose of this study is to understand teachers’ perceptions of the impact PLCs have on teacher self-efficacy, defined as teachers’ beliefs or convictions that the teachers themselves influence how well students learn. The data from my study will provide understanding to enhance the experience of PLCs and increase teacher efficacy, which ultimately impacts student achievement. Teachers, administrators, researchers, and policymakers agree that the quality of teaching is an integral factor in student growth (Leigh & Mead, 2005) and that it is teacher quality that is the key to improving schools (Annenberg, 2004; Marzano, Pickering, & Pollock, 2001). PLCs develop teacher capacity for improved quality teaching, which positively impacts student achievement. DuFour (2004) suggests that professional development must be

embedded within the daily organization and routine of the regular practices of teaching. Collaboration, professional conversations, and reflection form the most effective form of professional development (DuFour, 2004). Collaborative learning involves two or more individuals working together to accomplish a task or produce a product in a particular way (Gunter, Estes, & Schwab, 2007). Globally, schools have adopted collaborative systems and programs to address student needs (Pugach, Blanton, & Correa, 2011). Collaboration has positive outcomes for teachers as well. Goddard and Goddard (2007) discovered that teachers reported improved attitudes toward teaching, teacher efficacy, and increased understanding of student learning through professional collaboration opportunities. According to Williams (2010), collaboration also gives teachers a shared sense of responsibility.

It is essential that school administrators and teachers put forth the effort to improve teaching and learning and to ensure that teachers grow professionally (Easton, 2011; Michelman, 2012). Many schools today are looking to develop strategies to improve staff development techniques. One such strategy is the implementation of a professional learning community. The PLC is viewed as a systematic approach to address student needs, improve teaching and learning and improve the development of their staff (Hord, 1997). While each school may have different needs, the PLC provides a framework to address these needs. Within the professional learning community, teachers share ideas on best teaching practice, meeting student needs, and improving the quality of teaching and learning in practical ways. When learning objectives become a focus of these professional development activities, improvement follows (Darling-Hammond, 1996; Graham, 2007; MacLaughlin & Talbert, 1993; Rosenholtz, 1989). Rather than working in isolation, PLCs take on a collaborative approach so that teachers, facilitated by a teacher-leader, work together to share ideas on improving teaching methodologies and paths to student

achievement, observe and provide professional feedback to one another and use this information to improve their practice (Timperley, 2006).

Effective learning organizations require individuals to create a professional learning environment to build their collective capacity, which is developed from professional research and other educators (DuFour & Eaker, 1998; Fullan, 1993; Servage, 2008). This professional learning environment creates the opportunity for educators to identify the problems within the teaching and learning, set common goals and design ways to help students increase achievement.

In summary, there is a positive relationship between student achievement and those schools that promote professional learning communities (Mawhinney & Haas, 2005). Darling-Hammond (1993) and Senge (2006) identified the elements that are integral to professional learning. The literature review identified professional development structures and discussed the shift in professional development beliefs. Additionally, elements that have a positive or negative impact on PLCs were identified and examined and the impact of collaboration on improving teaching practice was discussed.

Models of a professional learning community. According to Hord (1997), professional learning communities are groups of educators that collaborate to improve their practice. The model *PLCs at Work*, DuFour et al. (2006), is one of the most well-known models of PLCs. Their model considers the establishment of a PLC as a process whereby educators regularly collaborate utilizing collective inquiry and action research with the purpose of achieving better results for their students (Solution-Tree.com, n.d.). This model stresses three main areas: a focus on learning, building a collaborative school culture and an emphasis on results. This model builds their work around four critical questions: What is it we expect our students to learn? How will we know when they have learned it? How will we respond when some students do not learn? How will respond when some students already know it?

By defining what students should learn, teachers are able to focus on student learning itself and how educators facilitate this learning. As teachers set goals and collaborate toward a shared understanding of what students are expected to learn, their pedagogical practices will be fine-tuned to meet these needs. Additionally, professional learning communities give teachers the opportunities to focus students reaching learning expectations and how to respond when they are unable to reach learning goals. A shared understanding of each of these questions is essential to effective teaching and learning.

PLCs at Work is structured around four building blocks of a professional learning community: mission, vision, values, and goals. Through these building blocks professional learning communities can be effective. “If schools are to be significantly more effective, they must break from the industrial model upon which they were created and embrace a new model that enables them to function as learning organizations” (Dufour & Eaker, 1998). The professional learning community provides educators with the opportunity to use inquiry,

collaboration and action research to improve teaching practice within the organization, and to develop successful strategies to increase student learning.

Hord and Sommers established another PLC model. Their model centers on five characteristics of PLCs which include: (a) shared beliefs, values, and vision; (b) shared and supportive leadership; (c) collective learning and its application; (d) supportive conditions; and (e) shared personal practice (Hord & Sommers, 2007). While this model shares some similarities to the Dufour (Solution-Tree.com, n.d.) model, Hord and Sommers' model (2007) differs in that they have more specific expectations of the PLC and believe "the roles and behavior of the principal [are] critical elements in how the school operates as a professional learning community" (Hord & Sommers, 2007, p. 27). They are also explicit in the time given to teachers to conduct the PLC. As a whole, not only must teachers commit to the development and implementation of the PLC, but their work must be supported by the principal (Hord and Sommers, 2007).

A third model, Hipp and Huffman's (2003) five dimensions model, was derived from Hord's characteristics of a PLC. The Hipp and Huffman model (2003) also utilizes the five areas of Hord's model (2007). Hipp and Huffman's model (2003) goes deeper by describing the critical components of the five dimensions. Huffman and Hipp's (2003) model also shared commonalities of ideas with DuFour's model in *Learning by Doing* (DuFour et al., 2006). These include accepting learning as the purpose of the school, examining teaching practice for its impact on learning, sharing a commitment to achieving a collective purpose, and developing a collaborative school culture.

Critical Friends Group (CFG) is a particular type of professional community within schools that fosters the capacity for school-wide instructional improvement. This type of

professional community is based around the “ongoing practice-centered collegial conversations about teaching and learning (Curry, 2008, p. 2). The belief of this model is that an increase in student learning and achievement can be attained through inquiry-based learning of the teachers in the PLC. Developed by educators affiliated with the National School Reform Faculty, CFG have specific protocols centered around professional reflection and discussion with other educators which build the groundwork for becoming a learning community through building trust, defining a purpose for the group, setting goals setting and giving feedback. There are other protocols that support an effective learning community. While Critical Friends Groups can be one type of professional learning community, these groups also serve as an element within the function of other types of PLCs, combining professional conversations centered on best practice with other characteristics and components of professional learning communities.

Similar to CFGs, Whole Faculty Study Groups (WFSG), originally developed by Murphy (Murphy & Lick, 2004), also use the focus on student learning to drive professional development. In a WFSG, every staff member participates in study groups that engage in cycles of action research to improve student performance (Murphy & Lick, 2004). Although every staff member is part of a WFSG, each group consists of 3-5 members. The collaborative nature of WFSGs is similar to that of PLCs and CFGs and like the Hord and Sommer model states explicit requirements of the implementation of the group.

Elements of professional learning communities. “Classroom isolation is one of the most pervasive characteristics of teaching” (Lam, Yim, & Lam, 2002, p. 182). Teacher isolation is one of the most predominant challenges to professional growth and with the added challenges of meetings, duties, and other professional obligations, little time is left for collaboration. This isolation leaves teachers with limited opportunities for growth, which then causes teachers to learn new skills by trial and error (Willerman, McNeely, & Koffman, 1991). The feeling of isolation then creates a lack of confidence in teaching ability, reduces teacher efficacy, and thus teachers take little to no risks, and teachers have a sense of competition (Willerman, McNeely, & Koffman, 1991).

The Southwest Educational Development Lab (1998) conducted a study of the Cottonwood Creek School and learned that “the factors that make it possible for students to grow and develop (stimulating and relevant material, social context, feedback on performance, support and encouragement) are the same that enable professional staff to grow and develop” (p. 7). Within the study, it was learned that staff were involved in learning, assessment, reflection, and evaluation, which enhanced the teachers’ professional growth and efficacy. The process of professional learning communities eliminates teachers working in isolation and instead promotes a collaborative environment for teachers to share practice and work together toward common goals (DuFour, Eaker, & DuFour, 2005; Hord, 1997).

Researchers developed several PLC models based on varying definitions. Each of these models included similar elements (DuFour et al., 2010; Forgarty & Pete, 2009; Hord, 2004; Kruse, 1995; Newmann, 1996). The characteristics the models have in common include a shared vision (DuFour, 2010; Hord, 2009; Kruse, 1995; Thompson et al., 2004), collaboration (DuFour, 2010; Forgarty & Pete, 2009; Fullan, 1995; Thompson et al., 2004), collective focus on student

learning (DuFour et al., 2010; Kruse, 1995) and the role of leadership (Chance & Segura, 2009; Hirsh & Hord, 2008; Sergiovanni, 2004). The strategy of implementing PLCs is a powerful, systematic approach used for improving schools and addressing the needs of its students (Carver, 2005; Hord, 1997).

Over the past 15-20 years, educators have faced an increased expectation in accountability (Chance & Segura, 2009; Vescio, Ross, & Adams, 2008). With this increase and the recognition that working in isolation is not conducive to teacher growth, teacher efficacy, or student achievement, a shift to job-embedded professional development was needed.

Professional learning communities provide structure for continual learning within the school community (Morrissey, 2000), which supports this paradigm shift. A successful learning organization allows its individuals to expand their learning capacity in a collective manner (DuFour & Eaker, 1998; Fullan, 1993).

PLCs have the potential to transform a school by changing the way the school approaches professional development. By approaching professional development as a whole school learning community, the school's focus moves from teaching to learning, from working in isolation to working through collaboration, and focusing its objectives on results (Eaker & Keating, 2008). However, to sustain this move, the school culture must move from the traditional hierarchical model of leadership to a culture of collaboration and shared leadership. Barth (2002) defined school culture as:

A school's complex pattern of norms, attitudes, beliefs, behaviors, values, ceremonies, traditions, and myths that are deeply ingrained into the core of the organization. It is an historically transmitting pattern of meaning that wields astonishing power in shaping what people think and how they act (p. 7).

Effective school cultures provide an environment where stakeholders share input, have a clear mission expressing expectations and share a unified approach to the learning process (Lezotte & McKee, 2002). A complete shift in the fundamental beliefs of a school culture may be needed to effectively implement a positive PLC and make significant improvements in student achievement (Eaker & Keating, 2008). Researchers identified the characteristics a PLC must have to shift the learning culture of the school and effectively implement a learning community. These include shared vision, collaboration, collective focus on student learning and the role of leadership (DuFour et al., 2010; Hirsh & Hord, 2008; Hord, 2004; Kruse, 1995; Sergiovanni, 2004).

Shared vision. One of the most important characteristics of a PLC is the focus on student learning. Establishing a shared vision and focusing on shared values, both faculty and leadership are able to make focused decisions about teaching and learning. According to Hord, a shared vision is a clear picture of what an organization deems important (Hall & Hord, 2001; Hord, 1997; Hord, 2004). This shared vision should permeate throughout the culture of the school and be central to the decisions, actions, and behaviors of all the stakeholders.

Having a shared vision is a vital element in creating an effective PLC (DuFour, 2010; Hord, 2009; Rogus, 1990; Thompson et al., 2004). Senge (1990) also identified shared vision as a core element of a learning organization. The vision includes the purpose and values of the organization (Hirsh & Hord, 2008). Comparing it to a boat's rudder, Senge (1990) stated that it is this shared vision that keeps the learning organization on course. Other researchers also identified shared vision as one of the vital elements for an effective PLC (DuFour, 2010; Hord, 2009; Kruse, 1995; Thompson et al., 2004). "A shared vision was not only imperative for a successful Professional Learning Community; it was necessary for an effective organization"

(DuFour & Eaker, 1998, p. 22).

A school's vision is the heart of its purpose and should be at the heart of each of the staff members of the school. Both Hord (1997) and DuFour and Eaker (1998) believed that shared vision and values are integral to the success of a PLC. This shared vision creates an agreement among participants of the need for teachers to grow professionally and continue learning (Beliner, 1997). It is the shared vision within the learning community that leads to behaviors that are focused on student learning (Hord, 1997). The shared vision creates a collective commitment within the school and is the force behind the school's decisions (Hord, 1997). This vision creates a clear goal for the learning community.

Having a shared vision is the beginning of the process; however, all stakeholders must be involved in the development of the vision and this vision must be based on the common values and beliefs of the group (Huffman, 2003). High expectations of both teaching quality and student achievement become readily achievable when all participants of the community are working toward the same goal (Barth, 1990).

Without this shared vision, a professional learning community is likely to become disabled and fragmented (Huffman, 2003). In any effort to improve schools, lack of a shared vision can be a challenging obstacle (DuFour & Eaker, 1998). To reach the goals of the learning community, those educators within the learning community must understand what those goals are, help to create them, and continue to build and share in the vision. "Building a shared vision is the ongoing, never-ending, daily challenge confronting all who hope to create learning communities" (DuFour & Eaker, 1998, p. 64).

Collaboration. Also, essential to a learning organization seeking to achieve its goals is the element of collaboration (DuFour & Eaker, 1998). It has been a common practice that

teachers work in isolation and do not have the opportunity to share their ideas. A collaborative environment focuses on the “relationships and connections among individuals” (Harris, 2002, p. 22). These connections create an environment that promotes commitment to improvement, experimentation to improve practice, and opportunities to share ideas.

Collaboration is essential to achieving increased student learning (Murphy & Lick, 2005) as teachers build collegial relationships through which the issues of student learning can be solved and learning occurs with and between one another (Morrissey, 2000). According to DuFour (2004), professional learning communities allow teachers to work in teams, “engaging in an ongoing cycle of questions and promote deep team learning” (p. 9). Collaboration nurtures new ideas for the practice of teaching and cultivates professional confidence (Strahan, 2003). The collaborative nature alters the way teachers view their practice and changes their goals from teaching to learning. In the Dufour (2004) model, professional learning communities focus on the question, “How will we know when each student has learned?” As schools move toward a more collaborative culture, their efforts are primarily general discussions about curriculum, its development, and data (DuFour, DuFour, & Eaker, 2008), yet the objectives of the professional learning community center on finding strategies that will meet the needs of the child.

The implementation of PLCs provides a deeper level of collaboration that provides better understanding of student needs and effective practice and adds to the professional growth of teachers (DuFour et al., 2005; Hord, 2009). Reflective dialogue and inquiry allows for the professional conversations of staff to identify the issues and problems of teaching and learning (Hord, 2004). These conversations lead to better solutions and thus increased student achievement. In a study of Urban Academy, Aness (2000) explored connections between teacher learning, instructional behavior, and student achievement. The results showed that the

collaboration of teachers led them to identify practices that resulted in higher academic attainment levels and increased matriculation rates.

Both Fullan (1995) and Fogarty and Pete (2009) added to this idea and agreed that collaboration was necessary for an effective PLC. A community of learners is “a place where students and adults alike are engaged as active learners in matters of special importance to them and where everyone is thereby encouraging everyone else’s learning” (Barth, 1990, p. 9). The constructivist approach to learning is essential in a successful learning organization (Darling-Hammond, 1993). Through professional constructivism, educators collaboratively build their knowledge of best practice and how to apply the craft of teaching to achieve better results in student learning. Through the implementation of professional learning communities, skills and expertise of teachers can be recognized and shared, building a collaborative community. Barth (1990) noted the importance of creating collaborative relationships among educators as way for teachers to grow professionally and increase student achievement.

The work of Rosenholtz (1989) also supports the importance of a collaborative environment. A collaborative environment improves practice. When teachers learn together practice is improved, which then leads to increased student achievement (Rosenholtz, 1989). Senge’s (1990) work further supported the premise of the value of collaboration in an organization. “A strong professional community encourages collective endeavor rather than isolated individual efforts” (Senge, 2000, p. 327). When teachers share their ideas about best practice, improving student assessment and developing better instructional programs, teachers increase their self-efficacy and grow professionally and student learning increases. Supporting school collaboration counters the possibilities for teacher isolation and builds a shared vision for school improvement.

This collaboration provides sustainability for the organization. “Only the organizations that have a passion for learning will have an enduring influence” (Covey, Merrill & Merrill, 1996, p.149). It is believed organizations that foster collaboration and build continuous learning into the culture of the organization will be the most successful in the 21st century (Drucker, 1992). In the reformation of schools, success and sustainability are important outcomes.

Collective focus on student learning. There are four questions professional learning communities must address so they focus on student learning (DuFour, 2004): (a) What do we want each student to learn? (b) How will we know when each student has learned it? (c) How will we respond when a student experiences difficulty in learning? and (d) How will we respond when a student has already learned it? A critical element of effective professional learning communities is a focus on student learning (Newmann, 1996). This shift from teaching to learning allows teachers to concentrate on their own learning, the learning of their students and opportunities to increase student attainment levels. While the traditional model of school is designed in a way that guarantees that all children are taught, education reforms insist that all children learn.

The current factory-model school, while seemingly efficient, is, in fact, grossly inefficient, inappropriate, and ultimately inequitable, as it requires that all children adapt to the mean. Those who do not learn at the speed of the assembly line lost out and/or drop out; those who could learn more, do not. Individualizing instruction for each learner is no longer a dream- it is an educational birthright for all children (Fulton, 2003, p. 32).

Professional learning communities are based on the premise that all children can learn, and can learn at a high level. There is evidence that collective focus on student learning increased student achievement. In a United Kingdom study that took place over five years,

teachers collectively planned for student learning, worked in teams to solve problems and were part of a learning community, which resulted in increased student achievement throughout the school district (Jackson, 2006; Jackson & Temperley, 2007). Focus on increased student learning provides a way to set clear goals and “clear explicit, concrete goals help move a school from a broad vision and good intentions to specific commitments” (DuFour, 1999, p. 58) critical to increasing student achievement.

The role of leadership. Leadership is a significant element in sustaining effective, successful professional learning communities (Chance & Segura, 2009; DuFour et al., 2010; Haynes, 1998; Hirsh & Hord, 2008; Sergiovanni, 2004; Wahlstrom & Louis, 2008). A principal’s leadership is vital for school reform and sustaining professional development (Haynes, 1998). While it is the position of the principal to create the conditions that build a collaborative culture for a school (Chance & Segura, 2009; Hord, 2009), the traditional view of the hierarchal leadership system must be changed to the view of a shared leadership of the educational community within the school. Shared leadership will allow the community to build collective capacity for collaboration, agreed shared goals and improved learning. “Administrators, along with teachers, must be learners: questioning, investigating, and seeking solutions for school improvement and increased student achievement” (Hord, 2004, p. 8).

According to Goldring et al. (2007), successful schools have leadership that instills a culture of collaboration, shared leadership, and professional practice. “Research has demonstrated that schools organized as communities, rather than bureaucracies, are more likely to exhibit academic success” (Goldring et al., 2007, p. 7). This academic success leads to enhanced teacher efficacy. The school’s leadership impacts the elements that have been identified as integral to a professional learning community (Haynes, 1998; Louis, Marks, &

Kruse, 1996). By shifting the principal's role from an administrator to a learner, leaders are able to empower teachers to work together toward a shared goal (DuFour & Eaker, 1998; Sergiovanni, 2008).

It is imperative that leaders model the behavior of a continuous learner and provides leadership opportunities among their teachers (Sergiovanni, 2008). It is the role of school leaders to create the climate and culture that is conducive to effective PLCs. When leaders decentralize the decision-making process, they are better able to serve the learning community rather than simply give directives (Darling-Hammond, 1993). Professional learning communities utilize collaboration and the strengths of several professionals within the community to ensure not only all ideas are voiced, but that the group is able to find the best answer to educational issues. In allowing others to take some of the responsibility for decision-making, leaders increase the probability of increased student learning and increased teacher efficacy, and allow teachers to feel trusted and build a climate of collegiality (Chrispeels, 2004). According to Wahlstrom and Louis (2008), distributive leadership models foster positive relationships, which are necessary for effective professional learning communities.

Factors that may challenge the PLC. The creation of a school culture that embraces shared leadership, collegiality and collaboration is critical to the success of a professional learning community (Eaker & Keating, 2008; Fullan, 2007; Servage, 2008). A culture that has not yet developed into a collaborative culture with shared leadership and its effects of trust and support will be a challenge to the building of a PLC. If the leadership does not understand the critical elements of creating and sustaining an effective PLC, the potential for a simple set of procedures designed to mimic a learning community is great and the potential for the failure of the PLC is high (Fullan, 2007).

Initiating the changes and implementing sustainable PLCs may be challenging. It is the shared vision and collaboration that sets the tone for creating and implementing PLCs. “Rather than impose their individual visions, principals would do well to develop collaborative cultures to help staff deal with all these innovations” (Fullan, 1992, p. 19). Change in an organization can be difficult. The principal must share and combine the visions of the educational community of the school into one collective vision that all can take on board (Huffman, 2003). A collaborative vision will be more sustainable when all teachers and leaders have the same goals.

The role of teacher efficacy. Social cognitive theory (Bandura, 1986, 1993, 1997) and theories that are related to motivation (DeCharms, 1968; McClelland, 1961) built the foundation for efficacy. Self-efficacy examines human beliefs about their own abilities to impact what happens to them. It is the concept of self-efficacy that forms the basis of teacher efficacy. Teacher efficacy is the confidence that teachers have regarding both their own ability to impact student learning and achievement and their collective capacity of the same. These motivational beliefs influence the professional behaviors of teachers (Klassen, Tze, Betts, & Gordon, 2011).

Bandura (1997) stated that one's motivation and actions are based more on their belief in their own abilities than on the reality of those abilities.

Bandura (1977, 1986, 1997) identified four sources of efficacy, which include mastery experiences, physiological and emotional state, vicarious experiences, and social persuasion. Mastery experiences are performances that have been successful. These experiences hold the most influence over self-efficacy. Teachers increase their own sense of efficacy when they have successful experiences that lead them to believe they are capable in their role. The physiological and emotional states are the levels of emotions such as anxiety, fear, stress, or excitement that one feels or increased heart rate, sweating or digestive problems. Reducing the stress and negative emotions can increase efficacy. Vicarious experiences include observing the success of others and identifying with their observation. Through the vicarious experience of this observation of others' success, teachers determine they are capable of the same success thus increasing self-efficacy. Social persuasion may include feedback from leadership or a peer, articles with evidence of teachers' positive role in student achievement or experiences within the social setting of professional learning communities. The social persuasion of PLCs improves teacher efficacy. Through these four sources, teachers construct an understanding of their beliefs in their ability to influence student learning (Goddard, Hoy, & Hoy, 2004).

Teachers with a high sense of efficacy hold high expectations for students, feel a responsibility toward the learning of their students, maintain a positive attitude about teaching, maintain a sense of personal accomplishment, and believe they can influence student learning (Ashton, 1984). These self-efficacy beliefs influence the amount of effort a teacher applies, the level of perseverance the teacher has when challenging situations occur, and the recovery time from adverse situations (Bandura, 1986).

Experiences within professional learning communities and the collaborative nature of the PLC can add to a teacher's perception of self-efficacy. This model of continuous improvement, feedback and relationship building may allow teachers' sense of self-efficacy to increase. Knowing that student achievement has been linked to teacher efficacy (Bandura, 1993; Goddard, 2001; Goddard, Hoy, & Hoy, 2000) makes the gathering of information from teachers' perspective of professional learning communities and the relationship to self-efficacy imperative to school improvement. In education, individual efficacy is the feeling that educators have that they are, in fact, making a positive impact on student achievement and a significant contribution to the field of education. A teacher with high levels of efficacy is more likely to learn and apply new teaching strategies, develop strategies that increase student autonomy, support low achieving students, promote students' self-confidence, set achievable goals, and persist even in the face of student failure (Ross, Smith & Roberts, 1994).

Summary

This review identified and examined the elements of effective professional learning communities. Additionally, the chapter defined a professional learning community, the roles of both teachers and leaders, and the potential impact on student learning. The literature review also examined the role of teacher efficacy and its importance in an educational setting. There is extensive literature regarding professional learning communities, their implementation, and factors for success. By examining the elements of effective professional learning communities, we can better understand their benefits and the challenges involved in their implementation, which can then potentially lead to ways to overcome those challenges. Utilizing professional learning communities as a form of professional development allows teachers to increase their individual and collective capacity.

Several models of professional learning communities were identified and, while some of the details within each model varied, they shared similar elements including shared vision, collaboration, collective focus on student learning and the role of leadership. Each of these elements was outlined and its impact individually discussed and reviewed. While there was extensive research on the elements critical for the success of a professional learning community, research on teachers' perspectives of the relationship between the professional learning community and self-efficacy is limited. This led to the conclusion of the need to conduct a case study to examine teachers' perceptions of the relationship between professional learning communities and teacher self-efficacy and the impact of professional learning communities on teachers. The remaining chapters will describe the research design and methodology, findings, and conclusions from this study and suggestions for further research.

Chapter 3: Methodology

Introduction

Constructivism is a theory of learning that stipulates that learners acquire knowledge and construct meaning by engaging in communities of discourse (Fosnot, 2005). Knowledge is “a mapping of actions and conceptual operations” (Von Glasersfeld, as cited in Fosnot, 2005, p. 4) that evolves from one’s experience with others. The concept of a professional learning community is based in this constructivist theory whereby the participants within the professional learning community interact to create meaning and learn together. Moll (1990) suggested that the social learning from professional learning communities in their context allows participants to construct meaning, acquire new knowledge, and build on their current understanding.

Social researchers may choose to observe many cases on a more superficial level or only a few cases more intently. A better understanding of a larger picture can often be gained by focusing on a key part (Gerring, 2007). The case study relied on evidence from a single case study while attempting to shed light on the theory behind other, similar scenarios. I determined a research question based on research of professional literature that guided this case study. The intent of the case study was to understand teachers’ perceptions of the relationship between professional learning communities and teacher efficacy.

The current professional development practices of school communities have centered around sending teachers to professional workshops outside the school rather than developing professional capacity from within the school and thus building a framework of social interaction that constructs meaning together. Teachers return having constructed knowledge based on the perceptions of others outside the context of their own school. The new knowledge may be a mismatch for the school since the reality of their learning has taken place under circumstances

that are often quite different than those within their school and can only have been perceived in this form (Bogdan & Biklen, 2007, p. 26). The administrators of many schools have chosen to take a new approach toward professional development practices and move to a job-embedded approach utilizing professional learning communities. The social interactions of the professional learning communities will align the culture of the school with the concept of promoting professional growth within the school and increase teacher efficacy.

To gain a deep understanding of teachers' perceptions of whether teachers believe that professional learning communities increase teacher self-efficacy, the design of the research needed to include data from a diverse set of teachers who are participants in professional learning communities. This data included two surveys, the Professional Learning Communities Assessment-Revised (PLCA-R) and the Teacher Self-Efficacy Scale (TSES), individual interviews conducted via Webex, and reflections from teachers who are participants in professional learning communities. To sufficiently address the research questions, a descriptive single case study (Yin, 2014) was chosen as the design of the study in order to study a single group of individuals. The group was composed of teachers who are participants in professional learning communities. The professional interactions within the professional learning communities give a venue for teachers to construct meaning and the descriptive nature of qualitative data allows voice and perspective to be heard (Merriam, 2002). A qualitative approach clarified the social interactions of the participants within these professional learning communities when they constructed their understandings, gave voice to the participants, and allowed multiple forms of data to be collected. Qualitative data is concerned with the processes, and highlights the process of interaction itself (Creswell, 2003; Merriam, 2002). It also allowed for different perspectives of the constructed meaning to be shared and an inductive process in

which patterns could develop (Hatch, 2002; Patton, 2002) from the triangulation of data collected from each of the data collection methods employed in this study.

Chapter 3 presents the purpose of the study, the context and demographics of students and teachers, the rationale for the chosen methodology, data collection procedures, participants of the study, the research question and design, data collection procedures, limitation of the research design, data analysis procedures, and instrumentation.

Purpose of the Study

The purpose of this study was to examine teachers' perceptions of professional learning communities and understand the impact, if any, professional learning communities have on teacher efficacy. Teachers of high quality exhibit behaviors of continuous learning. Research has shown that traditional ways of staff development are often ineffective, isolated, and learned outside the participant's own context (McIntyre & Byrd, 2008). These traditional workshops away from the participant's school are often seen as a waste of time because of their isolation and lack of follow-through (DuFour & Eaker, 1998; Thompson et al., 2004). Professional learning communities provide continuous, sustainable staff development (DuFour, 2004; Hord & Sommers, 2008). This study may provide practical data on teachers' perceptions of this theory.

The study may also provide information on teachers' perspectives on the impact of professional learning communities. There is supporting research regarding important criteria for implementing successful professional learning communities, the barriers, the benefits, and sustainability from the perspectives of learning community experts and administration (DuFour, DuFour, Eaker, & Many, 2004; Goddard & Goddard, 2007; Hord, 2008); however, there is limited research into teachers' perspectives regarding the implementation of professional learning communities and what they perceive to be the impact of PLCs.

For learning communities to be effective, the participants of those communities must work together to share ideas, construct meaning and buy in to collaboration and the effectiveness of implementing a professional learning community (Goddard & Goddard, 2007). While administrators can require professional learning communities to be implemented within the organization, the participants are in a position to better understand the elements that will support the effectiveness of the learning community. This allows for collegiality, collaboration, and increased teacher efficacy.

The goal of this study was to understand and examine teachers' perspectives of the relationship between professional learning communities and teacher efficacy and what they perceive to be the impact of professional learning communities. The knowledge gained from this study may benefit both teachers and students by providing information that could enhance the experiences of teachers participating in PLCs to increase teacher efficacy and professional learning. This, then, can have a positive impact on student achievement (Loucks et al., 2003; Murphy & Lick, 2005; Pugach, Blanton, & Correa, 2011).

In this study, the primary data set was the answers to questions in the interviews of the participants. The secondary data sets included a survey of the teacher efficacy scale and a survey of the assessment of professional learning communities used to confirm data from the interviews and participant reflections. The researcher's notes were the tertiary set. Triangulation of data helped to ensure the credibility of the data and alternative explanations (Yin, 2003).

Research Questions

This study examined teachers' perceptions of the relationship between a professional learning community and teacher efficacy. The social cognitive theory in building professional learning communities underpinned the research and while the research was guided by a specific

question, flexibility and an openness to emergent themes or patterns was practiced. By allowing for this the researcher was not locked into a path that does not allow for discovery (Patton, 2002).

The main guiding questions was:

What are teachers' perceptions regarding the relationship between a professional learning community and teacher efficacy?

The secondary question was:

From teachers' perspectives, in what ways, if any, do professional learning communities impact teacher efficacy?

Current literature details the role of effective professional learning communities, their benefits, the development of professional learning communities and the role of administrators in the implementation process. There is minimal research into teachers' perceptions of the effectiveness of professional learning communities as a way to promote teacher efficacy or teachers' perceptions on the impact of professional learning communities. This study provided additional data in this regard. The findings of the study could provide information for educational structure by creating a more effective and beneficial professional growth plan for teachers.

Research Design

The design of the study was a descriptive single case study that examined the perspectives of a single group of people (Creswell, 2003; Yin, 2003). This allowed me to delve deeper into the subunits within the larger case (Yin, 2003). The intention was to document the experiences of a group of educators within international schools in south Asia who have participated in professional learning communities, and by doing so, understand teachers'

perceptions of the relationship between the PLC and teacher efficacy and teachers' perceptions on the impact of professional learning communities on teacher efficacy. According to Merriam (1998), "reality is not an objective entity; rather, there are multiple interpretations of reality" (p. 22). By gathering the perceptions and experiences from a diverse group of teachers from different schools, the research examined multiple interpretations of reality from one group of people. After the initial descriptive writing, each participant checked the description of their documented perceptions to ensure its accuracy.

The researcher brings a construction of reality to the research situation, which interacts with other people's constructions or interpretations of the phenomenon being studied. The final product of this type of study is yet another interpretation by the researcher of others' views filtered through his or her own (Merriam, 1998, p. 22).

Single case study methodology was selected because it can be used to examine a particular phenomenon (Stake, 2006). Administrators of the participating schools use varied models of PLCs to enhance the professional practice of the school. The application of the case study occurred during the implementation of professional learning communities that focus on the design of coherent instruction, managing classroom procedures and engaging students in learning. The methodology was supported by participant surveys, interviews, and reflections. These data sources allowed the researcher to examine and understand teachers' perspectives of the effect of professional learning communities on teacher efficacy so that thick, rich description could be provided (Merriam, 1988).

Context

The research for this study was conducted in the primary division of five international schools that offer the International Baccalaureate Primary Years Programme (PYP). English is

the language of instruction within each school and one lesson per day of an additional language is also taught to all students. The primary divisions range in size from 250 to 600 students. Students range in age from 4 years old (Pre-Kindergarten) to 11 years old (Grade 5). Additionally, students are from countries all over the world. In the five schools represented in the study, a range of 45-67 countries were represented in the student population. Each of the schools was either a candidate or authorized International Baccalaureate World School implementing the IB Primary Years Programme.

The elementary divisions of the schools employ both teachers and teaching assistants for the implementation of teaching and learning. Only teachers participate in professional learning communities. Class sizes range from 12 to 25 students per class. In addition to classroom teachers, the schools employ teachers of Art, Music, and Physical Education as well as teachers of English as an Additional Language. A teacher with teaching qualifications from their country of origin leads each class. The participants in this study each hold a minimum of a Bachelor of Education degree. Home countries of the participants included Canada, New Zealand, Romania and the USA. Information of the participants' home country and host country can be found in Table 1.

Table 1

Participant Demographics

*Name of participant	Gender	Number of years teaching	Number of years teaching in host country/abroad in a PLC	Number of years participating in a PLC	Home country/Host country	Subject(s) taught
*Pseudonyms						
Freida	F	29	4/17	5	New Zealand/China	Music, Band
David	M	7	7/7	4	Romania/China	Physical Education, Health
Mary	F	14	4/10	3	Canada/Vietnam	Kindergarten
Ysabel	F	3	2/2	1	USA/Malaysia	Primary
Carl	M	13	3/5	3	USA/Thailand	Pre-Kindergarten

International Baccalaureate Primary Years Programme (PYP)

Teaching and learning in the PYP embraces collaboration with a focus on student learning. While each International Baccalaureate School is unique, they all share a common purpose and vision. The schools maintain a strong international component and draw on educational cultures from around the globe. One of the requirements to be an authorized PYP school is professional development, collaborative time for teachers, networking opportunities for teachers and administrators and a review process based in research of practice. “Innovative and creative educators from many different cultures play a critical role” (International Baccalaureate Organisation, 2015).

Sampling Method

To identify and select participants who are knowledgeable and experienced in professional learning communities and in the field of education, the strategy of purposeful sampling was used. This technique allows for the most effective use of a limited number of participants in a descriptive case study (Patton, 2002). This case study utilized the strategy of

homogenous sampling to select participants that were elementary teachers who participate in PLCs, “the purpose of which is to describe some particular subgroup in depth” (Patton, 2002, p. 235). Utilizing homogeneous sampling by selecting participants who were experienced elementary level educators who are currently involved in professional learning communities, the study examined a particular group of participants to examine a specific group in greater detail. While participants were from this sub-group, there was diversity among the participants through gender, experience, and school (see Table 2, p. 48).

All elementary level teachers within the 106 invited schools participated in the professional learning communities. An email was sent to the Head of School or curriculum coordinator at each school that explained the purpose of the study and asked for permission to invite teachers from their school to participate in the study. Once permission was granted, an information letter describing the study, expectations and criteria was sent to all teachers within those schools. This information letter also requested background data for interested participants including grade level(s) taught, age group of the participant, gender, and number of years teaching experience. From these schools, a diverse set of five teachers was selected and enrolled in the study. The selection process excluded schools and teachers that do not utilize professional learning communities.

Participants enrolled were based on obtaining a diverse group of teachers. Only qualified teachers with at least two years’ experience were selected as participants. Participants did not come from any vulnerable population. Potential subjects were identified by using a numeric assignment indicating the level to which the criteria were met with 1 being the highest and 4 being the lowest after their name. Following the number was F or M to indicate gender and a number indicating number of years teaching experience. The sample selected included diversity

such as different grade levels, different subjects taught, gender, age, years of teaching experience and years of participation in a professional learning community.

Instrumentation

The following instruments were used to conduct the case study: (a) survey of teachers' perceptions of professional learning communities, (b) survey measuring teachers' sense of efficacy, (c) interview questionnaire, and (d) participant reflections.

Professional Learning Communities Assessment-Revised (PLCA-R). A survey of teachers' perceptions of professional learning communities, the Professional Learning Communities Assessment-Revised (PLCA-R), was utilized to understand participants' perceptions of their school's practices of professional learning communities and the teachers' perceptions of these on professional growth. The PLCA-R can be found in Appendix C. Participants read the statements provided and indicated on a Likert-type scale the degree to which they agreed or disagreed with each statement. The survey included questions on leadership, shared vision, collective learning, shared practice, supportive conditions, the extent to which the PLC impacted their professional growth and the extent to which the PLC affected teacher self-efficacy. It also included an open-ended set of questions to allow for additional thoughts from the teachers.

Teachers Sense of Efficacy Scale (TSES). A survey measuring teachers' sense of efficacy, the Teachers Sense of Efficacy Scale (TSES), was used to measure the teachers' sense of efficacy and can be found in Appendix E. Permission to use the instrument was granted from Anita Woolfolk Hoy, PhD. This survey instrument asked that teachers rate their efficacy in the areas of classroom management, instructional practices, and student engagement. The TSES has been labeled "superior to previous measures of teacher efficacy in that it has a unified and stable

factor structure” and because it is closely aligned with self-efficacy theory (Hoy & Spero, 2005, p. 354).

Interview questionnaire. Each participant was individually interviewed via WebEx using a set of open-ended questions. These interview questions can be found in Appendix D. This type of questioning allows participants to give rich details of their own experiences from their individual frames of reference (Bogdan & Biklen, 2007, p. 3). The use of interviewing in a descriptive case study allows the interviewer to obtain a rich description of the participant’s experiences and pursue in-depth information (Kvale & Brinkmann, 2009). Using open questions, the participant was able to explain the meaning of their perceptions of the relationship between professional learning communities and self-efficacy and provide information of their personal experiences within professional learning communities.

Participant reflections. Participants were asked to complete a reflection to share how they felt their involvement in a professional learning community impacted their learning, if at all, if their participation in a professional learning community changed their beliefs about teaching or classroom practices and if so, how their beliefs were changed. Three guiding statements were used to support the participants’ reflections.

Data Collection

Evidence to support case study research emerges from many sources and is often more complex than data collection processes for other research methods (Yin, 2009). According to Yin (2009), there are six sources of evidence that is used for data collection in case study research: documentation, archival records, interviews, direct observation, participant observation and artifacts. Creswell (2009) explained the criteria for the collection of data includes a natural setting observable data and an analytical role of the researcher. The data for this study was

collected in a natural setting. The phenomenon of the study was observable and the researcher played a critical role in the collection of the data.

At the onset of data collection, a request was sent to Heads of School or curriculum coordinators in International Baccalaureate schools in South Asia asking permission to request volunteer teachers to participate in the study. Once permission was received, an information letter was sent via email to teachers within each school to request volunteers. The information letter described the study and its purpose, the expectations of participant involvement, and the details of the instrumentation so teachers have time to consider if they would like to be part of the research and to what extent. Potential volunteers were given a maximum of 3 weeks to respond to participate in the study. Volunteers were selected based on ensuring a balance of gender, length of time teaching, grade level(s) taught, age, and length of time participating in a PLC. This breakdown can be seen in the table below.

Table 2

Participant Demographics

*Name of participant	Gender	Number of years teaching in host country	Number of years teaching abroad in a PLC	Number of years participating in a PLC	Home country/Host country	Subject(s) taught
*Pseudonyms						
Freida	F	29	4/17	5	New Zealand/China	Music, Band
David	M	7	7/7	4	Romania/China	Physical Education, Health
Mary	F	14	4/10	3	Canada/Vietnam	Kindergarten
Ysabel	F	3	2/2	1	USA/Malaysia	Primary
Carl	M	13	3/5	3	USA/Thailand	Pre-Kindergarten

The participating teachers were then asked to complete surveys, participate in interviews, and volunteer to share their perceptions. The expectation was that a diverse set of volunteers

would be established based on the selection criteria. The measurement of teachers' self-efficacy was expected to take approximately 40 minutes to complete. The survey measuring teachers' perceptions regarding professional learning communities and was expected to take approximately 30 minutes to complete. Each participant was individually interviewed. The interviews each took approximately 1-1.5 hours to complete. It was expected that all interviews would be completed within 4 weeks after the surveys had been returned.

The use of surveys allowed a description of the opinions and perceptions of the study population. From these results, a generalization about the population can be made (Creswell, 2008). The first survey measured identified teachers' perceptions of professional learning communities. This survey was completed in the initial stages of the study to gain an understanding of the influence the PLC had on teacher self-efficacy as well as the level of efficacy each participant had in the three categories. The second survey, administered approximately one week after receipt of the response of the first survey, measured each teacher's sense of efficacy. The use of open-ended questions in individual interviews allowed data collection within a selected group of participants. These conversations provided further insight into perceptions of professional learning communities and their relationship to teacher efficacy.

Data Analysis Procedures

Qualitative analysis of the data begins with a large amount of data that is then broken down into smaller segments. These segments are then reorganized into themes (Gay, Mills, & Airasian, 2006). Creswell (2003) recommended six generic steps to organize the data. These steps are preparing and organizing the data, reading through the data, beginning detailed analysis with a coding process, using that process to generate categories and themes, advancing how these themes will be represented in the analysis, and making an interpretation of the data (Creswell,

2003). The process of analysis began with the first responses of participants. A systematic process of data analysis through the generation of themes and categories of teachers' perceptions of participating in a professional learning community on its relationship with teacher efficacy and of the impact of a professional learning community provided assurance of reliability and validity of the data.

The survey information was given to the five participants and information was collected using an online format that ensures only the researcher was able to view the results and results were not viewed by anyone other than the researcher. The survey results were quantitatively analyzed. Information from the surveys was used as a means to triangulate the data from the primary data, which was collected from the interviews. This triangulation of the data allowed the researcher to check the results from the interview data analysis with the results from the survey data. It was hoped that participants would feel free to be honest and forthcoming with their answers that will increase the validity of the initial data. From this information, categories, themes, and patterns emerged that were confirmed with the data from the interviews. Interviews were recorded and reviewed numerous times to ensure all data was collected. These interviews were then transcribed and reread many times ensuring the capture of the accuracy of the language. Emerging themes and categories were recorded in the researcher's notes. The process was repeated after careful analysis.

Each of the surveys had its own coding key for the analysis of the data. Interviews were recorded and transcribed by the researcher. Data collected from interview scripts, and teacher reflections were read and coded for themes. Simultaneous coding of descriptive code and process code was utilized based on Saldaña (2009). A systematic process of data analysis through the generation of similar themes and categories of teachers' perceptions of the

relationship between professional learning communities and teacher efficacy and of the impact of professional learning communities provided categories, themes, and patterns. The process was repeated for each round of data collected. The themes, patterns and anomalies identified were written as a descriptive, descriptive case study to provide readers with the evidence of the research.

Limitations of the Research Design

The study considered teachers' own perceptions of professional learning communities and their beliefs on the impact of PLCs. The study assumed the participants completed the surveys, interview questions and reflections honestly. Furthermore, the timeframe of the study for data collection was approximately 1 month and analysis of the data took approximately 6 months. The study was also limited to schools using the Primary Years Programme framework of the International Baccalaureate Organization and included only teachers in the elementary division of the school.

Credibility

The process used for coding the data came from Saldaña (2009). There were eight steps in the process that allows a researcher to analyze data. These eight steps included reading over the transcripts to get an overall picture of the data, reading over documents and writing thoughts about the underlying meaning in the margins, making a list of all the topics and clustering them, abbreviating the topics as codes and putting the codes next to the data, finding the most descriptive wording for the topics and turning them into categories, alphabetizing the final abbreviations of categories, assembling the data material for each category, and recoding the existing data if necessary (Creswell, 2003).

This process was used for individual interviews and the participants' reflections. Initially

developed by Olivier et al. (2003), the PLCA was then refined by these same developers in 2008 (Olivier et al., 2008). In previous administrations, the PLCA-R has shown strong consistency. Extensive testing into the validity and reliability of the TSES and PLCA-R as well as Saldaña's (2009) process gave credibility into the data from these instruments. Using these processes and multiple sources provided supporting evidence and allowed for the triangulation of data to give credibility to the findings (Merriam, 1998).

Additionally, views of the participants regarding the interpretations of their perceptions were solicited to ensure credibility of the study (Merriam, 1998). According to Stake (1995), participants should "play a major role directing as well as acting in case study" research (p. 115). Therefore, the process of member checking was used whereby the transcripts were shared with participants to verify accuracy of the information and add description that may have been missed to enhance credibility of the study.

Transferability

Transferability is the degree to which the results of a descriptive study can be transferred to other settings of similar context (Golafshani, 2003). The focus of this study was to examine the teachers' perceptions of the relationship between professional learning communities and teacher efficacy as well as teachers' beliefs on the impact of professional learning communities. By studying these perceptions, additional insight into a more effective and beneficial learning experience and growth plan for teachers can be gained so that other schools may benefit from the data that emerges. Because of the rich description of the results, this study can be transferred to similar settings and contexts as they pertain to other research sties (Golafshani, 2003). This thick, rich description allows readers to determine the transferability of the study (Merriam, 1988).

Expected Findings

Traditional professional development consists of teachers attending educational workshops off campus to bring their learning back into the classroom. However, there is significant research that shows this type of professional development as ineffective (Avalos, 2010; O'Sullivan, 2002; Ross & Bruce, 2007). In the search to find the professional development format that is most effective for professional growth, effective leaders of change understand that change cannot occur without input and buy-in from teachers. For sustainable change to occur, teachers must have the opportunity to build their own understanding of good practice (Goddard & Goddard, 2007; Michelman, 2012).

To this end, I expected to gain a deeper understanding of teachers' beliefs regarding the relationship between professional learning communities and teacher efficacy and professional learning communities as a form of professional development on the professional growth of teachers from their own perspective. From their participation in a professional learning community, I also expected to understand if involvement in a PLC impacts teacher efficacy in any way. Additionally, I expected the research to provide information about the educational structure of professional learning communities as a means to professional learning for teachers. By addressing the issue from the teachers' perspectives, I expected to attain data that could inform the creation and implementation of professional learning communities that will have the greatest impact on teachers' self-efficacy.

Ethical Issues

Researcher's position. The role of the researcher is to analyze the data and draw conclusions from the data in a logical and objective manner. I was interested in examining the teachers' perceptions of professional learning communities on their self-efficacy, teachers'

beliefs of the impact of PLCs and teachers' perceptions of the elements that positively or negatively impact the implementation of the learning communities. I chose this research to understand ways to enhance job-embedded professional development via professional learning communities. To this end, my role as researcher was to analyze the experiences and beliefs shared by participants for patterns and themes and provide rich descriptions of the participants' perceptions.

Ethical procedures. The research procedure was submitted to Concordia University's Institutional Review Board (IRB) for approval prior to beginning the study. My committee members were consulted throughout the study to ensure safeguards. A consent form was signed by each participant via electronic mail, which described the study, requirements, expectations, and protocols. In the consent form, the expectation that participants would answer questions as honestly as possible was included to help ensure quality of the data collected. All data, including email correspondence, recordings, transcripts, notes, and coding were kept confidential on a password protected USB, which was kept in a locked drawer in my home office. Use of pseudonyms protected participants' identities and I removed any information that could be used to identify a participant.

Summary

The purpose of this study was to develop an understanding of teachers' perceptions of the relationship between professional learning communities and teacher-self-efficacy and the impact, if any, professional learning communities have on teacher efficacy. In preparing a research design, understanding the prior beliefs of teachers, examining their perceptions of professional learning communities, and measuring teacher efficacy was of utmost importance.

The choice of using a single case study methodology allowed me to rely on the findings of one case study to generalize about the theory behind similar situations. The move from a traditional form of professional development to a job-embedded approach for professional growth that uses professional learning communities provided the opportunity to collect data on teachers' perceptions of the professional learning communities and consider the impact on teacher efficacy through a qualitative approach. In highlighting the processes of the interactions, various perspectives were understood.

The design of this study focused on studying a particular group of people within international schools offering the Primary Years Programme (PYP) in which the teacher population is diverse. Data collection included surveys, interviews and reflections and emerging categories and themes could be identified. From this design, data collection and analysis, I expected to provide additional insight into teachers' perceptions of the relationship between professional learning communities and teacher self-efficacy and their perceptions of any impact these learning communities might have on teacher efficacy.

Chapter 4: Data Analysis and Results

The primary purpose of this study was to examine the relationship between teachers' involvement in professional learning communities and teacher self-efficacy. Participants in the study included five qualified teachers with a minimum of a Bachelor of Education degree or its equivalent from their home country who are working in international schools outside their home country. Home countries of the participants included Canada, New Zealand, Romania and the USA. Participants varied in the number of years they have been teaching, subject and age of students taught, length of time participating in professional learning communities and the number of different professional learning communities to which the participants have belonged. Each of the participants taught at different schools in China, Malaysia, Thailand, Vietnam in order to have diverse experiences within the group of participants. This chapter includes demographics of the participants, a review of the research methodology, and the results from the participant interviews and two separate surveys.

Each of the five participants completed the online PLCA-R (Appendix C) and the TSES surveys (Appendix E) prior to an individual interview conducted online via WebEx. The data collected from the individual interviews was the primary data used to answer the questions of the study. This data has been presented first in the Presentation of the Data section (Carter, 2017, p. 62) with the secondary data from the two surveys presented last. There were two research questions underlying and providing a research framework for the study.

The main guiding question was:

What are teachers' perceptions regarding the relationship between a professional learning community and teacher efficacy?

The secondary question was:

From teachers' perspectives, in what ways, if any, do professional learning communities impact teacher efficacy?

Demographics of the Participants

This chapter presents the data collected from the five participants in the study. The data from two surveys were collected over a 2-week period in June 2016, followed by individual interviews during the first 3 weeks of July 2016. Of the five participants, three were female and two were male. The home country of the participants included Canada, New Zealand, Romania and the USA. The number of years teaching outside the participants' home country ranged from 2 years to 17 years while the number of years teaching in the current host country ranged from 2 years to 7 years. The number of years of teaching and administrative experience of the participants in this study ranged from 3 years to 29 years with 12.2 years being the average number of years teaching. Additionally, the length of time with involvement in professional learning communities varied from one year to seven years. Pseudonyms were used to protect the anonymity of the participants.

Table 3

Participant Demographics

*Name of participant	Gender	Number of years of years teaching in host country/abroad	Number of years teaching in host country/abroad	Number of years participating in a PLC	Home country/Host country	Subject(s) taught
*Pseudonyms						
Freida	F	29	4/17	5	New Zealand/China	Music, Band
David	M	7	7/7	4	Romania/China	Physical Education, Health
Mary	F	14	4/10	3	Canada/Vietnam	Kindergarten
Ysabel	F	3	2/2	1	USA/Malaysia	Primary
Carl	M	13	3/5	3	USA/Thailand	Pre-Kindergarten

To select participants, a letter of introduction to the study was sent to Heads of School or curriculum coordinators to schools offering the International Baccalaureate program (Appendix A). A requirement to participate in the study was the implementation of professional learning communities in the participants' respective international schools. Administrators in schools who met the criteria had the option to share this with their staff. Teachers participating in PLCs who were interested in participating in the study then responded to the letter via email and provided requested demographic information.

Based on the responses to the initial letter of interest to participate in the study, I sorted potential interviewees into the category of host country, then by gender to select a diverse set of participants. Each gender was then organized by the number of years teaching experience, ages of students taught, subject(s) taught and number of years of participation in a professional learning community. Next, participants from different countries were considered and selected so that different ages or subjects were represented and there was a participant with less than five years teaching experience, a participant with between 6 to 12 years teaching experience, and a participant with more than 12 years teaching experience. The number of years each of these participants participated in a professional learning community was then noted. The remaining two participants were selected from any country based on ensuring a balance between all the participants in age of students taught, number of years teaching experience and number of years of participation in a PLC ensuring that both classroom teachers and single subject teachers were included in the study.

Description of the Sample

Freida*. An experienced educator, Freida* has been teaching for 29 years. Of these, she has taught in international schools outside her home country of New Zealand for 17 years.

Frieda is a single subject teacher of Music, which includes Music and Music Appreciation and extra-curricular classes of Band and Orchestra. She has worked with students from 3 years old to 18 years old. Freida* was first introduced to the concept of professional learning communities during her first international post in England. These professional learning communities were based on school needs and met monthly outside of school hours. She participated in these PLCs for two years. Her next two posts did not involve PLCs and therefore there was a gap in her participation. In her previous post in Malaysia and her current post in China, Freida has been participating in a variety of PLCs for a total of 5 years.

David*. David* has been teaching Physical Education (PE) and Health for 7 years, all of which have been outside his home country of Romania in international schools. He has worked with students between the ages of 8 and 14. In addition to teaching elementary PE and Health, David* has also coached soccer, basketball and swimming. David* was introduced to professional learning communities while in his current post in China and has participated in these for 4 years. In this school, teachers had choice as to the focus of the PLC. Work was primarily completed outside of school hours but the school dedicates limited amounts of time to participate in the PLC such as an occasional PLC time in lieu of a scheduled staff meeting.

Mary*. Mary* has been teaching Kindergarten for 14 years. Ten of these teaching years have been in posts outside her home country of Canada. Mary* has participated in professional learning communities at two different schools, which when combined total 3 years of participation in PLCs. She has participated in two different PLCs at her current school in Vietnam and one PLC at her previous post in China. Mary* works with 5- and 6-year-olds. Her current school has utilized professional learning communities for 10 years with all teachers selecting and participating in a PLC each year.

Ysabel*. Somewhat new to the teaching profession, Ysabel* has taught 1 year in her home country of the United States where she was a learning support specialist for Grades one to five, and taught 2 years in an international post in Malaysia as an elementary classroom teacher in Grade Two. It is in her current international post in Malaysia that she was introduced to professional learning communities. The school dedicated specific time throughout the school year for PLCs to meet and had the expectation that each PLC will present their new learning at a PLC celebration in the spring. Ysabel* has been a participant of one PLC, which took place during the school year prior to her interview.

Carl*. With 8 years teaching experience in his home country of the United States, Carl* has now taught in two international schools over the past 5 years. One of these schools was located in Korea and one was located in Thailand. In his current school in Thailand, he has participated in professional learning communities for the past 3 years. He has primarily worked with students from 4 to 7 years old. He is currently a Pre-Kindergarten teacher with students who are 4 to 5 years old. During the first year of PLC work, Carl* and other teachers new to the school were assigned to a PLC. In subsequent years, the school presented a variety of PLC topics and teachers selected their own PLC. However, the caveat was that a minimum of two teachers had to participate in the PLC. Otherwise, the teacher had to choose a different PLC. Updates were expected at regular intervals during the year with a presentation at the completion of learning.

Coding Methods for Interviews

Once the interviews were completed, each interview was transcribed and recorded onto a Microsoft Word document and member checked by the participants. I then listened to the interviews while simultaneously reading the transcripts to ensure accuracy of the transcribed

information. In vivo coding was the initial research strategy used to discover emerging patterns of the experiences of the five participants. Multiple readings of the participants' interviews were conducted to use the data to understand the perspectives of the participants and identify common concepts, categories, and themes (Saldaña, 2009).

Using the First Cycle In Vivo Coding Method (Saldaña, 2009) in the first coding of the participants' interview transcripts, key words, and phrases in each of the transcripts were identified to understand the overarching meaning of the participants' perspectives. Each interview was read in its entirety three times to understand the meaning of the data. Next, each transcript was read with the purpose of pulling out and recording noteworthy concepts, words, and phrases. For each interview transcript, these key words and phrases were noted in a separate document to look for emerging patterns and themes in the next level of coding. The dominant key words and phrases that emerged initially included:

1. sharing ideas and best practice,
2. improved teaching practice,
3. improved learning for students,
4. collegiality,
5. feel I'm not alone,
6. working together for a purpose,
7. empowers me to be innovative,
8. helpful for student learning,
9. can be creative,
10. learning together,
11. builds relationships,

12. shared goals,
13. student improvement,
14. working together to share best practice for student learning.

After the codes in each transcript were documented, checked through for accuracy, and re-documented as necessary, the second level of coding began.

In the second level of coding, the keywords and phrases in each transcript were sorted into categories. When reviewing the categories, commonalities in each of the five transcripts were noted for later use. Next, the categories in each transcript were examined for ways these might be sub-categorized and I further coded the data into sub-categories. A list of the common sub-categories is listed in the table in Appendix G with the first phrase in each column the most common form of phrasing for that set.

I then looked for patterns within each transcript and ways the codes were interrelated. This allowed commonalities among the participants to several main categories to develop sub-categories and patterns began to emerge. For example, all five participants spoke frequently about the importance of collaboration to build teacher efficacy and further related this concept to professionalism and building relationships. Each participant also shared that their feelings of isolation impacted teacher efficacy. Additionally, the less experienced teachers mentioned this more often than experienced teachers. Three of the five participants spoke of the impact they can have on students each time creativity or innovation was discussed in the interview. Each of the five interviews focused on learning- both student learning and their own professional learning. This coding took place over four readings of each transcript.

In the third round of coding, data was reviewed to determine the dominant categories and themes, which can be found in Appendix F. After each transcript was categorized and sub-

categorized, the categories within each individual transcript were compared to the categories within the transcripts of each of the other participants' transcripts. This was done for each participant transcript. Through comparison of the data within each of the five transcripts, categories and sub-categories within the data were better defined and patterns in themes were further developed as they emerged. A final reading of each transcript while comparing against the categories and themes that were determined allowed for the identification of specific quotes from participants to support the validity of the data. Next, these phrases from individual participants were noted within each category and theme. Finally, the patterns in the findings that were related to the questions guiding the research study were noted and established. A figure of these findings can be found in Appendix F.

Presentation of the Data

Primary research question. The guiding research question, "What are teachers' perceptions regarding the relationship between a professional learning community and teacher efficacy?" provided an understanding of teachers' perceptions of the relationship between professional learning communities and teacher efficacy. To gain insight into this, the transcripts of the participants' interviews were analyzed and coded. Seven themes were identified and data was organized according to those themes: (a) collaboration, (b) feelings of isolation, (c) impact on students, (d) professional trust, (e) continued learning, (f) shared beliefs, and (g) creativity in practice.

Collaboration. Collaboration is one way to increase teacher efficacy (Berry, Daugherty, & Wieder, 2009). A recurring theme that emerged among all five participants who had a strong impact on their efficacy is the collaborative nature of professional learning communities. Participants all shared the idea that regular collaboration through their professional learning

communities encouraged them to be more collaborative outside the PLC. “Because I’m used to working as part of a team in my PLC, I often find that I want to bounce ideas off other colleagues throughout the day or the week as well” (Carl*). David* shared a similar idea, “The habit of sharing ideas with others in the PLC has carried over to my daily professional habits, which has made me feel so much better about my teaching practice.”

Further, collaboration positively affected their belief that what they were doing in the classroom was important.

When we’re brainstorming ideas together and sharing what we do in our teaching practice, we also look at data together to work to find solutions to problems. By working together, we are able to find ways to help our students or improve our practice to serve the needs of the students. I’m making a difference to my students. Learning to collaborate has made a difference to the whole atmosphere of the school (Mary*).

Ysabel* agreed, “One of the most important parts of being involved in my PLC is sharing ideas with more experienced teachers. Working together has helped me become a better teacher.”

Participants connected the practice of collaboration within the professional learning communities to an increase in their efficacy. They described working as part of team on a goal as something that made them feel like the work they do was important and had a positive impact on the end results. The participants shared the importance of collaboration as a way to feel connected, which increased their efficacy. Freida* summed this up as,

Without any collaboration or collaboration that is effective, I would have no idea if I’m doing what is absolutely the best. Working on my teaching practice with others helps me connect to them on a professional level and I can know if I’m implementing the best

practice possible.... This connection gives me confidence in knowing I'm doing the best job I can.

Feelings of isolation. Teachers can often feel isolated in their teaching practice (Lam, Yim, & Lam, 2002). A second way to increase teacher efficacy is to ensure teachers feel they are part of a larger group that is working together as a team. A perception of all five participants in the study was that participation in a professional learning community greatly diminished feelings of isolation. Freida* stated,

Prior to being part of a professional learning community, I felt like I was on my own. Then I was at a school that implemented PLCs. This changed my life. It changed my practice. I felt like I wasn't the only one experiencing problems reaching students. This feeling of being all on my own really hit me when there was a gap between the times I was part of a PLC. I really missed feeling connected to other professionals. I was so excited when I had the opportunity to be involved in another PLC because I thought 'I won't be on my own any more'.

From a somewhat different perspective, Ysabel*, with only three years teaching experience, was able to compare her experience to those of other teachers she knows that are also fairly new teachers,

As soon as we really dug into our PLC, I felt like I was part of a group. I felt more confident in myself as a teacher. My friends who were also teachers that I graduated with all complained no one would help them. They always complained about feeling they were thrown into the deep end, like no one was around to guide them. But I didn't feel like I was so alone because I was working with my PLC colleagues (Ysabel*).

Teachers often spent their day in classrooms with students without connecting to other professionals except in meetings on procedure. Working in a professional learning community created a space in which teachers could share ideas, ask for support in strategies to better reach their students and improve their own craft of teaching. David* shared,

Before I was part of a PLC, the only time during the school day I got have an adult conversation was if I had time to stop in the hallway quickly. At the end of the day, I was busy preparing for the next day. I had no idea if other teachers faced the same challenges I had. When my school introduced the idea of professional learning communities, at first, I was skeptical--just another meeting. But once we identified topics, I got excited. Other teachers had similar concerns or similar goals. I didn't feel so alone any more.

This common thread was true for Mary* as well. Several times she discussed how being part of a PLC built her confidence because she no longer felt alone in her struggles to support students.

This was especially true when I taught at a large school where the students were almost all EAL kids. I kept thinking 'how am I going to manage? These kids won't even understand me.' But my first PLC was based on finding strategies to do just that and I no longer felt like I was on my own.

Carl* said something similar, "As part of a professional learning community, you aren't alone any more, trying to figure it all out all by yourself."

Impact on students. All five participants shared the perception that professional learning communities increase their efficacy because it gave them the belief that what they do has a positive impact on students. Positive impact on student learning has been linked to teacher efficacy (Mojavezi & Tamiz, 2012; Schleicher, 2015). Mary* indicated she believed that being

part of a PLC directly impacted increased reading assessment scores in her students, which made her feel she had accomplished an integral part of her role as a teacher of young students.

Because the PLC was focused on teaching many different reading strategies and better use of assessment, I was able to reach students in a new way. This made a difference in how well the kids read and that made them feel proud. And that is what teaching is all about (Mary*).

David* shared this belief as well but looking through a different lens:

I know that every time I'm part of a PLC I'm going to learn something new. What I learn there will help me become a better teacher. Whether I'm teaching Invasion Game skills or throwing or jumping skills, what I learned in the PLC will make a difference. Not just on the skills themselves but on how I reach the students, how confident I am in my ability, and that shines through and gives a message to the students. It's just like the PYP (Primary Years Programme) attitudes and profiles. Because I feel better about myself as a teacher from what I learned [in the PLC], I can model things like confidence, commitment, enthusiasm, or being balanced. It's like a cycle so that the more I learn, the more it affects the kids, which makes me know I'm making a difference, and so I want to learn more.

Freida* also discussed the ways being a PLC participant increases self-efficacy due to the impact learning from the PLC has on the students.

When you take the learning from your colleagues back into the classroom, you are able to have a positive impact on the kids. Of course, having a positive affect on your students increases self-efficacy. I don't see how it couldn't. For example, I used some strategies I learned to help students improve their performance skills. This led to an amazing

musical performance. That made me know that what I do is worth the hours I put in planning and organizing performances. I make a difference.

Carl* and Ysabel* shared similar examples. In their individual interviews, they both felt that when a teacher uses their new knowledge that came from a professional learning community and the students benefit, the teacher is able to take pride in her students, which increases self-efficacy. Carl* summed it up best, “I’m a teacher. My whole reason to be at school is to support my students. So, when that happens, it’s like getting a pat on the back and that makes me feel good.”

Professional trust. Participation in professional learning communities also increased trust in colleagues, which in turn increased trust in themselves, a key in increasing teacher efficacy. Four of the five participants discussed the importance of developing trust with colleagues as a way to increase self-efficacy. Professional learning communities served as a means to build professional trust. Carl stated, “The PLC gave me the opportunity to get to know colleagues in a way that wasn’t threatening that I might not have known otherwise. Because we had a similar goal that we worked together on, I learned to trust them.”

In the interview, David* discussed how trust with both colleagues and administrators was an important aspect of how teachers feel about themselves.

I’m in the classroom everyday trying to make a difference. I need to know I can depend on teachers for advice not judging me. But I also need to know that admin have my back.

We all need to rely each other and trust what we’re doing.”

Throughout the interviews, it was clear that trust from all levels of administrators was important for teacher efficacy.

As a school, we depend on each other for support. We're all in this together doing the best we can, taking on a lot of extra work. When I'm in a PLC, I need to trust my colleagues to give advice, not criticize me. But even more important, I have to depend on my principal, the curriculum director, even the superintendent of the school, to create a time and a space for the PLC. We all have to share in the PLC together in some way for it to work. And when that happens, it definitely affects it [efficacy] in a positive way (Freida).

Mary* shared her belief in the importance of trust. She explained that the more trust the professional learning community has with one another, the greater the impact on teacher efficacy. "Having that trust builds up relationships, and those relationships build up our belief in ourselves. It's one of the best aspects of the PLC."

Continued learning. According to participants, another way to increase efficacy is to increase knowledge and skill. Professional learning communities gave teachers opportunities for both. Ysabel* stated,

I was worried when I first started teaching that I didn't know enough, that I wouldn't be a great teacher. I mean, university prepared me but I was scared I wouldn't cut it. The first year I felt like I was drowning, like I wasn't helping the kids. But then I was part of a PLC. I learned so much from other people, some with little experience like me, some who've been teaching for years. Working with different people, working together, and learning from our experiences, from research, from conversations, really made me feel better about myself and what I can do as a teacher. I hope I will always have opportunities to be in a PLC because if I keep learning, I know I will always be an effective teacher.

The remaining four participants also discussed the significance of continuous learning on teacher self-efficacy. They stated they believe that professional learning communities encourage teachers to learn more and to inspire them to do better. “We are focusing on what matters so I want to learn, I want to be there. I look forward to the PLC” (David*).

Our PLC team this year has set the goal of ways to get our kids to understand Math concepts not just skills. The whole team focuses on soaking up the learning from reading journals, sharing expertise, from all of us testing out theories and strategies. It’s great that we can each tackle an issue from a different lens and then come together to discuss it. Then we each learn not just from what we did, but from what others did too. It’s just so great when you can do that, you know. It’s like, ‘hey, I’m part of a valuable team’ and we know we each have our part to play” (Mary*).

Freida* and Carl* shared similar thoughts. In separate interviews, they each spoke to the importance of on-going learning in the teaching profession and the role the PLC played in that. “Teachers have to stay up-to-date on best practice so they know they’re doing their best for their students. PLCs are one way to do this” (Freida*). Carl* shared a similar remark, “Professional learning communities allow educators to fine tune their craft. When we know we’re doing our best, we can feel good about ourselves and our teaching ability.”

Shared beliefs. According to Richardson, Karabenick, and Watt (2014), having shared beliefs increases self-efficacy. Owston (2007) also established that shared beliefs allow the goal to be sustainable. All five participants discussed the relationship between professional learning communities and having shared beliefs and how this has an impact on their self-efficacy.

Davide* shared,

When I'm part of a PLC, I feel like I'm part of a group that has a common understanding of best practice and how we want to improve it. It connects back to not feeling alone but is more than that. We have a shared belief in what we want to accomplish, what we want to learn. This belief in what educating children is about changes how I feel about myself. It changes my practice for the better and that makes me feel like I'm on the right path.

Carl* shared a similar comment, "When you are sitting among a group of people working on a shared goal, a goal that each of you believes to be important, you can't help but get a feeling that what you're doing makes a difference." The similarities in this belief among the other participants was also evident,

Early in my teaching career and before I'd even heard of PLCs, I remember sitting in meetings to set school goals. Discussions could get pretty heated with people arguing about what was important or that a particular concern was more important than another. It seemed like we spent most of our time arguing about what we believed was important to work on and quite frankly it left me feeling disappointed and just meh. But then I was at a school that had professional learning communities and I admit that when I first went I thought 'here we go again'. But the difference was uncanny. In the PLC, you've already identified what is important, what you'll focus on. You already are in agreement by defining the PLC focus. Then you don't waste time deciding that and you get to really jump into the meat of why you're there. This made all the difference in how I felt, and still feel, about teaching (Mary*).

As a fairly new teacher, Ysabel* held the idea of the relationship between shared beliefs and efficacy from a somewhat different perspective. As a teacher develops professionally, having opportunities to define their beliefs more clearly improves their practice and ultimately

increases their efficacy. “I’m still a bit new to teaching so being required to choose a PLC gave me a chance to reflect on what I think is important in teaching. Meeting with more experienced teachers who felt the same way made me feel like ‘I got this’. Similar to Ysabel*’s statement, Freida* expanded further on the idea of shared beliefs in relation to teacher efficacy and shared how she believed that having shared beliefs not only impacts efficacy but is important in teacher growth as well.

When a group of teachers meet and they have a common goal, it can’t help but have a positive impact on how they feel about their practice. Having others that share your ideas and belief in something you want to improve validates you. But it’s even more than that. You grow as a teacher. Your practice improves, your confidence increases, you expand on your own ideas as a professional and build up your own capacity. And knowing that this is going to improve student learning or your school or whatever your PLC is studying, drives you. Drives you to research more intensely and absorb everything you can. Not only do you feel great about what it is you are doing but you are developing as a professional in the process.

Creativity in practice. A characteristic of a professional learning community is experimentation (DuFour & Eaker, 1998). Each of the five participants interviewed stressed the importance of developing their creativity in their teaching practice and linked this to gaining the confidence to do this from participation in professional learning communities. Experimentation with teaching strategies and, more importantly, the feeling that professional learning communities gave teachers self-confidence to be more creative and take risks played an important role in teacher efficacy. “You always hear the phrase ‘think outside the box’ but as a new teacher I was too afraid to do that. Then from my PLC I learned that it’s ok and it doesn’t

mean every try will give great results. But we learn from it. We feel better from it (Ysabel*).

Other participants believed that learning to be creative within a PLC allowed teachers to improve their practice, which increased their belief in their ability to increase student learning. Freida* shared,

We experimented a lot. We always tried to focus on what was best for students, how we can help them achieve their potential. We talk about what we did, what we could try next time. We start with an idea and then it evolves and we think of so many different ways we can achieve our goal. For example, I had a small group of students who just didn't understand the concept of pitch. I had tried several strategies I've used in the past but this group just didn't get it. We talked about it in my PLC. Teachers, even the non-musical teachers, suggested ideas. Some of the ideas from non-music teachers turned out to be some of the best strategies. They looked at the situation from a completely different way".

Another participant stated:

The PLCs I've been part of have really opened my eyes to new ideas, to new ways of thinking. I like that I'm encouraged to try new things, to experiment to find what might work in different situations. There's not just one way to teach. It's not a 'one size fits all' profession. Kids learn differently and we have to be able to find ways to meet the needs of all our students. PLCs help us do that, and that helps me know that I make a big difference to kids, to my profession as a whole (Carl*).

Teachers who were part of Professional Learning Communities learned to take risks and be creative in what they do. They were able to see the results of their learning from the PLC in

the effectiveness of their lessons. “The more time I spend in PLCs, the more things I try in the classroom and it makes a difference in how my students respond” (Mary*).

Secondary research question. The secondary research question, “From teachers’ perspectives, in what ways, if any, do professional learning communities impact teacher efficacy?” provided an understanding of the impact that PLCs have on teacher efficacy from teachers’ perspectives. Teachers’ perceptions of the impact of a professional learning community on teacher efficacy provided participants an opportunity to relate how they perceive being part of a Professional Learning Community impacts their personal and professional lives.

Attitude. Each of the five participants discussed the impact that participating in a professional learning community had on their attitude, which increased their self-efficacy. “A side-effect of working with my [PLC] team is that I have a better outlook both personally and professionally. I feel better about myself” (Ysabel*). Three of the participants indicated that how the PLC was implemented made a difference on their attitude. “If it hadn’t been done well, I don’t think I would’ve had such a sunny disposition” (Mary*). Freida* compared her experiences in different PLCs,

I’ve been in PLCs where the roll-out by admin was efficient. They respected our time, our choice, our input. They provided enough resources and were highly organized, especially when creating a calendar to ensure we had time to work together and accomplish our goals. But I’ve also been part of PLCs where the roll-out wasn’t so great. Maybe it was their first time, maybe it just wasn’t their strong suit. Both times, it had an effect on my attitude. In the first, my attitude both personally and professionally was a lot better than the second.

David* shared a similar comment,

The PLC gave me a positive outlook. I felt better. I looked forward to going to work, looked forward to a lot of things, because I just felt better about myself. But this was probably because I got to work on what I wanted to in the PLC and was given time in the day during certain times of the month to meet with the team, to research, to plan.

Decrease in stress. Each participant also indicated that being part of a professional learning community lessened the amount of stress they felt in their practice. This decrease in stress led to increased efficacy according to Carl*,

Working with other teachers made me feel less anxious about what I do in the classroom. I could get advice, talk about ideas for lesson plans, ask about strategies to help students with learning or behavior problems. As my stress levels went down, my belief in myself went up. I really feel like it was being part of that learning community that helped me deal with stress and feel better about teaching.

Ysabel* felt similarly, “The start of the year and the end of the year are especially difficult [stressful] but the other teachers in my PLC helped me feel better about being ready to handle things.”

Mary* was able to add to this concept in a different way. She discussed the importance of the PLC in lessening stress and increasing efficacy if the implementation is done well.

It’s not just the PLC and being part of it that makes a difference. Sure, a good group of teachers working together well makes you feel good about what you are doing, what you will continue to be able to do. It takes the stress off usually. But sometimes, it can increase stress and make you start to question. When you have time to research and can give your ideas a try in the classroom, then you feel good about yourself as a teacher and know that you can make a difference.

Student improvement. An increase in student learning increases teacher self-efficacy (Hoy & Miskel, 2005). All five participants shared they believe that their participation in a professional learning community added to their capacity to improve student achievement which led to an increase in teacher efficacy. Mary* shared,

I know my students would still get better even if I wasn't part of a PLC. But they improve even more because I *am* part of a PLC. I can get ideas. I get the research and knowledge of more than just myself so that I help students achieve. Their [the students] achievement is my achievement. We're in this together and I feel great about that.

Carl* shared his views on student success related to his involvement in a professional learning community as well and even discussed an example of this.

I had a student that I couldn't figure out. I tried lots of strategies to get him to understand the concept of time. I did everything. At the time, I was part of a PLC mapping math curriculum standards with the PYP. I discussed my concerns with the teachers in my group. Sure, we used up some of the time discussing this kid. In fact, a lot of our time. But in the end, I found a way to help him. If it wasn't for this PLC and having a great relationship, I might not have found a way to help him. That made me feel good about teaching. Not just because I helped this little boy but because I had a group of people that would help me.

Ysabel* summed up the views well, "Being part of a PLC improves my practice which increases student learning. Of course, this makes me believe in myself. It makes me believe in my whole profession."

Professional Learning Community Assessment-Revised (PLCA-R). Each participant received the online version of the *Professional Learning Community Assessment-Revised*

(*PLCA-R*). The online version of the survey, developed by Oliver, Hipp, and Huffman (2010), was selected due to the various locations of the participants so they could easily complete the survey from their respective locations. The *PLCA-R* assesses school personnel's perceptions on actual school practices as they relate to PLCs. The authors of the *PLCA-R* (Appendix D) established the validity of the instrument and provided permission for its use in the study. The assessment consists of six constructs of statements for each dimension identified in the literature as an effective attribute of PLCs. These six constructs include: (a) shared and supportive leadership, (b) shared values and vision, (c) collective learning and application, (d) shared personal practice, (e) supportive conditions- relationships, and (f) supportive conditions-structure. Each of the participants completed the survey via the Southwest Educational Development Laboratory at <https://www.sedl.org/plc/survey> within one week of receiving access in a link via email during the week of June 26, 2016. The mean score for each question within the six constructs was calculated, which supported these teachers were participants in PLC models meeting the criteria from Oliver, Hipp, and Huffman (2010).

Results of the Professional Learning Community Assessment-Revised.

The mean scores for each question in the six constructs was calculated to ensure participants were part of good PLC models. This information also allowed the researcher to check for consistency of the data. The mean scores for each of the questions within the six constructs can be found in Table 4.

Table 4

PLCA-R Participant Responses

Construct	Mean Score
Shared and Supportive Leadership	2.58
Shared Values and Vision	3.36
Collective Learning and Application	3.38
Shared Personal Practice	3.66
Supportive Conditions-Relationships	3.52
Supportive Conditions-Structure	3.06
Overall Mean Score	3.26

Shared and supportive leadership. The statements in this construct related to teachers' perceptions of the effects of leadership on the school community. The five participants indicated a somewhat negative belief in a shared and supportive leadership in their respective schools with the exception of two questions relating to collaborative processes. The overall mean score in this construct was 2.58 indicating the participants somewhat disagreed there was shared and supportive leadership within their school.

Shared values and vision. Statements in this construct received agreeable or strongly agreeable responses from each participant. The responses with the highest level of agreement from all five participants were on the collaborative process for developing a share sense of values among staff and stake holders' active involvement in creating high expectations that increase student achievement. The responses of the participants on the remaining statements in this section of the PLCA-R varied among the participants but were all either Agree or Strongly Agree with an overall mean score of 3.36 indicating participants feel their respective schools have shared values and vision within the school.

Collective learning and application. The statements within this construct centered on relationships and communication among the staff of a school. Responses from each of the five

participants indicated they work in schools that promote and nurture collective learning with the highest level of agreement focusing on commitment and open communication among staff. All five participants responded Strongly Agree to statements on collaboration and collective learning. David clarified his responses in the comment section, “Not all PLCs at our school focus on work that can be applied to teaching” (participant survey, June 28, 2016). Among all five participants, only two responses indicated disagreement. The overall mean score of this construct was 3.38, which indicated strong agreement.

Shared personal practice. With the exception of one statement in this construct, the statements within shared personal practice scored the highest from each participant of all the sections on the survey with an overall mean score of 3.66. This indicated the participants work in schools in which the staff is highly collaborative and supportive of one another. In comments on the survey form, Freida stated “Staff need time to be set aside to observe each other so that we learn from our classroom practices. We need to find ways to encourage what teachers do well” (participant survey, June 26, 2016). Most statements in this construct received responses from all five participants of either Agree or Strongly Agree. All five participants positively commented about the collaborative nature of their school and that teachers often share ideas about their professional practice.

Supportive conditions-relationships. This construct showed evidence the participants perceive their respective schools conducive to positive relationships among staff. All five participants strongly agreed there are caring, trusting relationships among colleagues within the school learning community, especially between teachers and students. Ysabel* commented “I feel that the only way a group of people can truly learn together is when they show trust and respect for one another” (participant survey, June 29, 2016). Four of the five participants agreed

there is a culture that allows for taking risks. The overall mean score in this construct was 3.52 indicating a strong belief in the supportive conditions for relationships.

Supportive conditions-structure. Statements in this construct centered on systems for time and resources as well as focusing on facilities and communications systems. Each participant felt there were resources available for professional development of staff. The lowest score from all five participants was regarding time set aside for collective learning. The overall mean score in this construct was 3.06 indicating agreement at a lower level than most of the other constructs. Carl* commented, “It is important to have enough time to learn from each other. If I’m told ‘do this’ but admin doesn’t set time aside to accomplish it, that tells me they don’t value what they asked me to do” (participant survey, June 28, 2016). Participants indicated favorably that they agreed communication across the school promotes a flow of information from the main office, to parents, to the community. They also agreed that proximity to their colleagues allowed for greater collaboration. While this was the lowest scoring construct with an overall mean score of 3.06, this indicated each school has high functioning professional learning communities, but participants feel that structural supportive conditions need additional support.

Teachers’ Self-Efficacy Scale (TSES). The second survey administered to each participant was the *Teacher Self-Efficacy Scale* (Appendix E). This instrument measures three components: (a) efficacy in student engagement, (b) efficacy in instructional strategies, and (c) efficacy in classroom management. Each participant received this survey online via Qualtrics a few days after receipt of the *PLCA-R* answers and completed it within one week of receipt. The instrument used a scale with a range from 1 to 9, with odd numbers corresponding to the following choices: (1) Nothing; (3) Very little; (5) Some influence; (7) Quite a bit; (9) A great deal.

Data from this survey was used to measure the level of self-efficacy from each participant in each of the three categories. The questions were created using Bandura's (1997) social cognitive theory. The reliability and validity of the instrument was established via testing and re-testing (Tschannen-Moran, & Hoy, 2001).

Results of the TSES. The majority of ratings for all questions were between 7 and 9 indicating a high level of teacher efficacy in each of the three areas. All five participants held their highest mean score in the category of *efficacy in student engagement* with the second highest mean score in *efficacy in instructional strategies*. In the third category, *efficacy in classroom management*, all five participants had their lowest mean score. Each participant's mean score in this category was well over 6.0 which still indicated a high level of efficacy in this category as well. Mean scores from the participants in each of the three categories can be found in the table below:

Table 5

Mean TSES Participant Scores

Participant	Categorical mean scores			Overall mean score
	Efficacy in student engagement	Efficacy in instructional strategies	Efficacy in classroom management	
Freida	9.75	8	7.625	8.458
David	7.875	7.75	6.875	7.5
Mary	7.75	7.625	6.875	7.417
Ysabel	7.125	7.125	6.375	6.875
Carl	8.125	7.875	7.5	7.833
Overall mean scores	8.125	7.675	7.05	7.617

The results of the TSES survey indicate a high level of efficacy among the participants in the study. In each of the categories' overall mean score was at or above the level indicated as *Quite a bit* on the survey scale. The findings also indicated the participant with the highest level of efficacy was the teacher with the most teaching experience and more PLC experience while the participant with the lowest level of efficacy was the teacher with the least PLC experience and the least teaching experience. Examining possible correlation between teaching and PLC experience may be an area for further research.

Validity of the Data

The data collected in the research was recorded on the researcher's private, password protected WebEx account and transcribed by the researcher to ensure accuracy of the thoughts shared by the participants. Transcription of the interviews was accomplished by listening to the recording of each interview and transcribing into a Word document. Once transcription was completed, I listened to each recording while reading the transcription to ensure accuracy. The responses to the surveys were recorded so that information could be compared with the data from the participants' interviews. Transcripts of the interviews were read nine times and coded and re-coded to ensure categories, subcategories, themes, and patterns that emerged were accurate. Notes and records were kept so regular checks of the validity of the data could be made and referenced. The initial sections of information as it pertained to each participant were shared via email with the respective individual that had shared the information to confirm an accurate interpretation. Each participant confirmed the accuracy of the written interpretation as presented.

Additionally, data from the PLCA-R and the TSES surveys were used to confirm the professional learning communities in which the participants took part met the criteria for a good

PLC from Oliver, Hipp, and Huffman (2010) and measured the participants' level of efficacy. This allowed for validation of the use of information from their interviews.

Credibility. Credible descriptive studies use in-depth, detailed, rich descriptions containing extensive detail (McMillan, 2012). Credibility establishes the results of the research are believable from the participants' perspective. The purpose of qualitative research is to understand the area of interest from the participants' perspective since only the participants can judge the credibility of the results. In this study, each participant checked the accuracy of the description ensuring credibility.

Additionally, the descriptions enhanced credibility by demonstrating considerable engagement with the data and respect for the value of the information (McMillan, 2012). In the research, I presented the similar experiences of the participants from their individual experiences and provided thick, rich description of these experiences. Additionally, I included exact quotations from participants, which added further credibility to the study.

Summary

The purpose of this study was to understand teachers' perceptions of the relationship between professional learning communities and self-efficacy. A secondary purpose was to identify the factors of a professional learning community teachers perceived to impact teacher efficacy. This chapter provided the results and an analysis of the research from the *Professional Learning Community Assessment-Revised*, the *Teachers' Self-Efficacy Scale (TSES)* and individual interviews with the study's participants. Evidence from the data indicated that teachers generally have a positive relationship between professional learning communities and self-efficacy. However, the data also indicated that factors in the implementation and running of the PLCs can impact their degree of self-efficacy. For example, Freida* indicated "We need

time set aside for our PLC; otherwise, it almost becomes just another chore teachers must do.”

Mary* discussed the need for support from administrators,

I’ve been involved in a few PLCs. The ones that were most successful for me and my colleagues were supported by the admin team. They dedicated time for us to meet, gave us choice in what we wanted to learn, and gave us freedom to take risks in our own learning. Just like in PYP, we could truly inquire into our topic.

Continued discussion of data that was uncovered on the implementation of professional learning communities is discussed in Chapter 5 (Carter, 2017).

Based on the analysis of the data, seven primary themes that emerged that gave insight to the perceived relationship between professional learning communities and teacher self-efficacy. These themes include (a) collaboration, (b) feelings of isolation, (c) impact on students, (d) professional trust, (e) continued learning, (f) shared beliefs, and (g) creativity in practice. Also based on the analysis, three factors in the implementation of PLCs that can affect teacher efficacy included (a) time, (b) purpose toward student learning, and (c) support from administrators. The data collected in this study showed that, when implemented effectively, professional learning communities had a positive impact on teacher efficacy. The following chapter provides a summary and detailed discussion of the results, implications for the practice of professional learning communities and recommendations for further study (Carter, 2017).

Chapter 5: Discussion and Conclusion

Introduction

Current literature discusses the role of professional learning communities in increasing collective capacity within a school organization (DuFour & Eaker, 1998; Fullan, 1993; Servage, 2008), the perspective of administrators in the implementation of professional learning communities (Darling-Hammond, 2007; DuFour, Eaker, & DuFour, 2005; Hord & Sommers, 2008; Hord, 1997; Lujan & Day, 2010), and the impact of professional learning communities on teacher efficacy from the perspective of administrators (Hord & Sommers, 2008; Lujan & Day, 2010; Morgan, 2010); however, by comparison, little data has been collected on the perspective of teachers toward the relationship of professional learning communities on teacher efficacy. As a school leader, I was tasked with both developing a professional learning community program for teachers in international schools and increasing a positive school climate. Therefore, I designed this study to understand the relationship of professional learning communities on teacher efficacy from the perspective of teachers so I could understand this relationship from teachers in international settings in schools in which high levels of collaboration were already the norm; therefore, the participant pool included teachers who have or were currently participating in professional learning communities in international schools offering the International Baccalaureate Primary Years Programme.

The purpose of this study was to examine teachers' perceptions of the relationship between professional learning communities and teacher self-efficacy and understand teachers' perceptions of the impact professional learning communities had on self-efficacy. The data for the study was acquired from the Professional Learning Communities-Revised survey (PLC-R), the Teacher Self-Efficacy Survey (TSES) and individual interviews. This chapter includes a

summary of the study's results, a detailed discussion and analysis of the findings, and connections of the results to current literature. The chapter also includes limitations of the study, the implications these findings have on current practice, and suggestions for future research followed by a conclusion.

Summary and Discussion of the Results

Statement of the problem. Current professional development practices often center on participating in workshops that last from 2 days to one week and are outside the context of the teacher's school (Joyce & Showers, 2002). The amount of time spent in this type of professional development often does not allow for in-depth inquiry, evaluation of one's practice or reflection of learning that took place (Schmoker, 2004). To have the greatest impact on professional development that increases student achievement, a more intensive and sustainable professional development practice needs to be made available (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). Building a school's capacity from within allows greater benefit to teachers and therefore students (Hemphil & Duffield, 2007; Stoll et al., 2006).

Many schools have begun to move to a job-embedded approach that is built from within the school focusing on the school's own context. The professional conversations that take place within professional learning communities provide opportunities for professionals to collaborate and think critically about how to improve their practice (Bertsch, 2012; Bunker, 2008). Teachers have direct impact on student learning and their beliefs are significant to implement positive change (Davis & Andrzejewski, 2003; Kalin & Zuljan, 2007). Teacher efficacy greatly influences the success of a school (Kalin & Zuljan, 2007; Klassen, Tze, Betts & Gordon, 2011) and has been linked to student learning (Goddard, 2001; Goddard, Hoy, & Hoy, 2000).

Professional learning communities provide a framework on which to build teacher efficacy; therefore, understanding the relationship between professional learning communities and teacher efficacy from teachers' own perspectives can lead to increased efficacy. While there is substantial research on professional learning communities and leaders' views of PLCs, there is limited research on teachers' perceptions of professional learning communities and the impact they have on self-efficacy. Input from teachers on their perceptions of PLCs is integral to creating positive change (Funda, 2009; Griffiths, Gore & Ladwig, 2006;) as well as to its sustainability (DuFour, DuFour, & Eaker, 2004; Hipp & Huffman, 2003; Strahan, 2003).

Research questions. Through the examination of teachers' perceptions on PLCs, I was able to gain insight into the relationship between Professional Learning Communities and teacher self-efficacy. The following questions were developed to guide this research:

The question guiding in this study was:

What are teachers' perceptions regarding the relationship between a professional learning community and teacher efficacy?

The secondary question was:

From teachers' perspectives, in what ways, if any, do professional learning communities impact teacher efficacy?

In Chapter 4, results from two surveys, Professional Learning Communities Assessment-Revised (PLCA-R) and the Teacher Self-Efficacy Scale (TSES), were shared. Additionally, five teachers who are teaching in international schools offering the International Baccalaureate Primary Years Programme and who were currently participating in professional learning communities were interviewed.

Professional Learning Community Assessment-Revised (PLCA-R). The PLCA-R was used to measure participants' perceptions of their schools' practice of professional learning communities related to the six dimensions of professional learning communities: (a) shared and supportive leadership; (b) shared values and vision; (c) collective learning and application; (d) shared personal practice; (e) supportive conditions- relationships; and (f) supportive conditions-structures. The results from this survey provided data on the school-level practices in these six dimensions for each of the participants.

Shared and supportive leadership. According to the literature, a shared leadership model is more likely to sustain a successful professional learning community (Hord, 2004). When leaders also take on the role of a learner in a PLC, teachers and leaders share the learning experience creating opportunities to show support to one another (Sergiovanni, 2008). The overall rating of the five participants in this study indicated a negative belief in shared and supportive leadership in their respective schools with the two exceptions being regarding decision making completed through committees and the existence of a collaborative process for developing shared values among staff. This data did not fully support the current literature.

While the five participants in these international schools believed that shared leadership within the school was lacking, they did have a highly collaborative staff. Goldring et al. (2007) stated that schools with shared leadership are usually more successful. Further, one of the significant elements of a PLC model that is sustainable and effective is strong leadership (Chance & Segura, 2009; DuFour et al., 2010; Hirsh & Hord, 2008). However, the participants in this study demonstrated a high level of efficacy without believing there was shared leadership according to survey responses.

Additionally, participants responded their principal did not proactively support initiatives even though the level of collaboration was high and teachers held shared values. The literature suggested that when leaders allow for greater creativity teachers develop new strategies to increase student learning (Bertsch, 2012; Bunker, 2008). The study participants believed that while their school leadership did not support new initiatives, the level of collaboration among teachers increased their efficacy.

All five participants strongly agreed their schools have a collaborative process in place to develop shared values. These findings showed that while the literature states the importance of strong, shared leadership, the participants in this study believed the process of collaboration was more important than shared leadership in the success of a professional learning community and this collaboration had the strongest impact on the PLC. This finding indicated that the participants within the communities themselves must work together and believe in the values of the PLC for the learning community to be effective. These participants' responses indicated the value of the shared leadership is in the implementation of the professional learning community and the teacher leadership within the PLC.

Shared values and vision. According to DuFour (2010), Hord (2009), and Thompson et al. (2004), establishing a shared vision is a vital element of an effective PLC. Findings from this study indicated agreement from the perspective of teachers as well. Each of the statements regarding shared values and vision were given either agreeable or strongly agreeable responses from each participant. This finding indicated the importance teachers placed on professional learning communities that focus on student learning and increasing student achievement. A professional learning community may become disjointed without shared vision and values (Huffman, 2003). Understanding that teacher efficacy is directly connected to student

achievement (Bandura, 1993; Goddard, 2001; Goddard, Hoy, & Hoy, 2000) and that an increase in student learning positively impacts teacher efficacy (Klassen, Tze, Betts, & Gordon, 2011), these findings showed that teachers in a professional learning community established shared vision and values through working together on common concerns.

Collective learning and application. Data from the PLCA-R survey indicated that each participant was part of a school that promotes and nurtures collective learning, a primary requirement of the International Baccalaureate Primary Years Programme. The statements focused on commitment to learning and open communication among staff received high levels of agreement from all five participants. Working in teams to solve problems resulted in higher student achievement (Jackson & Temperley, 2007) and this increase in student achievement increased teacher efficacy (Klassen, Tze, Betts, & Gordon, 2011). Findings from this study indicated that the five participants hold a strong belief in the relationship between the importance of collective learning and professional learning communities.

Shared personal practice. The dimension of shared personal practice was the second highest scoring category of all five participants. The findings in this category indicated the participants were in a working environment that values shared personal practice and collaboration. Each of the participants shared the importance their school puts on collaboration. Additionally, four of the participants commented that the implementation of the International Baccalaureate Primary Years Programme played a role in the level of collaboration within the school. Participants showed disparity in the statement *Opportunities exist for staff to observe peers and offer encouragement*. While three of the participants either agreed or strongly agreed with this statement, the remaining two participants disagreed. This finding indicated a need to ensure that time is set aside for teachers to observe one another's teaching practice, which

supported the need for effective leadership that is strategic in the implementation of professional learning communities (Chance & Segura, 2009; Hirsh & Hord, 2008; Sergiovanni, 2004). Those participants who were given time for peer observation indicated this practice helped to build confidence in themselves and trust among the staff. The participants who did not have this opportunity stated having this practice would have been highly beneficial to their learning. This finding concluded the importance of ensuring opportunities for peer observation and sharing of teaching practice is viewed by teachers as an important element of professional learning communities.

Supportive conditions and relationships. As the category on the PLCA-R in which participants indicated the most positive responses, the participants agreed caring, trusting relationships within the school learning community were an essential part of their school. This data indicated the participants perceive their school environment to be supportive. According to Lezotte and McKee (2002) and Harris (2002), positive relationships are one of the cornerstones of an environment that is necessary for effective professional learning communities. Statement 41, *School staff and stakeholders exhibit a sustained and unified effort to embed change into the culture of the school*, was split between the participants with three of the participants disagreeing with this statement and the remaining two stating they strongly agreed. This split indicated that some teachers may perceive the work within PLCs to be separate from actions that create a unified change to school culture. The relationship teachers built with colleagues within the professional learning community were most important to their efficacy in some cases.

Supportive conditions and structures. An important element of professional learning communities are the structures in place that support learning (DuFour et al., 2010; Sergiovanni, 2004; Wahlstrom & Louis, 2008). In these international schools, participants perceived

resources, with the exception of time, were provided for professional development. With four of the five participants believing the school schedule did not promote collective learning and shared practice and only two believing that they were not given time for collaboration with colleagues, the data indicated some confusion about time set aside for collaboration and time put into the schedule for shared practice. Teachers' perceptions of collaboration and shared practice differ. Leaders must establish time for both collaboration and peer observation and reflection to support professional learning communities. Collaboration connects individuals and strengthens relationships (Harris, 2002) and provides opportunities for teachers to grow professionally and increase student learning (DuFour et al., 2005; Hord, 2004; Hord, 2009). From teachers' perspectives, collaboration is vital for efficacy. Additionally, the participants indicated that opportunities for peer observation with discussion is also important in building teacher efficacy.

Other statements. The last dimension of the PLCA-R centered on systems for time and resources. Responses from the five participants indicated they believe their schools' communication promotes the flow of information from the main office, to parents, to the community. They also agreed that proximity to their colleagues allowed for greater collaboration. These responses demonstrated teachers' perceptions of the importance that communication and collaboration with other stakeholders. Three participants disagreed with statement 50: *Communication systems promote a flow of information among staff members* indicating a greater need for effective communication systems to be established and maintained with their colleagues.

Results. Results from the PLCA-R indicated that the five participants of these international schools shared a positive experience in the implementation process and experience of professional learning communities. Their perceptions of the six dimensions of professional

learning communities demonstrated that within their schools offering the IB Primary Years Programme high levels of collaboration, a commitment to establishing and maintaining a shared vision and shared practice, and an environment that supports collective learning exist. While each participant maintained an overall negative response to a shared and supportive leadership in their respective schools, they agreed that decision-making and communication were collaborative. Responses on the sections of the survey gathering data on a shared vision, collective learning and shared personal practice were all positive and indicated the participants work in environments that promote collaboration. These findings alongside the findings from responses on shared leadership indicated that teachers perceive collaboration between and among teachers to be valuable regardless of whether there is a shared leadership model within the school. Research states that leadership is integral to creating successful learning community (Chance & Segura, 2009; DuFour et al., 2010; Haynes, 1998; Hirsh & Hord, 2008; Sergiovanni, 2004; Wahlstrom & Louis, 2008) and shared leadership is integral to the success of the school (Goldring et al., 2007; Hord, 2004). However, the data from the survey indicated different perceptions from the perspective of teachers than what is indicated within the literature. Findings from the survey indicated teachers perceive the creation of a collaborative school culture, strong communication among colleagues and opportunities for shared practice and collective learning to be the most important elements of professional learning communities, which can inform leadership to consider this information when implementing PLCs.

Teacher Self-Efficacy Scale (TSES). Data was also collected from the TSES to measure the level of teacher efficacy of each participant in each of the three areas of (a) efficacy in student engagement; (b) efficacy in instructional strategies; and (c) efficacy in classroom management. Results from these teachers in international schools indicated a strong relationship

in the three components measured by this instrument. The areas with the highest level of efficacy were student engagement and instructional strategies respectively. While the third category, classroom management, was the lowest of the three, results still indicated a high level of efficacy in this area. The questionnaire is designed to gain a better understanding of the kinds of things that create challenges for teachers. It uses a 9-point system which include a range of choices: *None at all*, *Very little*, *Some influence*, *Quite a bit*, and *A great deal* with one indicating *None at all* and nine indicating *A great deal*.

Efficacy in student engagement. Responses in this area were the highest among all five participants. Data from responses in this area ranged from seven, *Quite a bit*, to nine, *A great deal*, with the exception of one question: *How much can you do to motivate students who show a low interest in schoolwork?* Two participants scored this question a six, which is between *Quite a bit* and *Some influence*. The findings indicated these international teachers demonstrated a high level of efficacy in their ability to actively engage students in their learning although some may feel challenged by outliers who show little to no interest in their learning. Teacher efficacy has a direct connection to student achievement (Bandura, 1993; Goddard, 2001; Goddard, Hoy, & Hoy, 2000), which helps us understand why teachers may feel challenged by these outlying students. Professional learning communities give teachers opportunities to increase student engagement and thus student achievement through shared discussion of concerns, enhancing their teaching practice and finding strategies that can be more effective (Jackson, 2006; Jackson & Temperley, 2007).

Efficacy in instructional strategies. On questions in this category, participants responded primarily between six and eight. The highest scoring question in this category was in reference to the level of creativity teachers feel they are able to utilize in the implementation of

lessons for their students. Three of the participants responded *A great deal* while two participants scored one point below this. These responses also indicated a high level of teacher efficacy in the area of instructional strategies. According to DuFour et al. (2005) and Hord (2009), participation in professional learning communities leads to the growth of teachers.

Efficacy in classroom management. The lowest level of responses from the participants indicated less efficacy in the area of classroom management than the two previous areas. Some questions in this area received responses of *Some influence* from one or more participants. These questions focused on students with disruptive behavior or the teacher's ability to ensure that a student could not ruin an entire lesson. While the majority of participants' responses were *Quite a bit*, indicating a good level of teacher efficacy, the responses were lower on the efficacy scale than the areas of instructional strategies and student engagement. These findings indicated that classroom management is an area in which international teachers have less confidence in their abilities.

Individual interviews. The intent of this study was to understand the relationship that participation in professional learning communities has on teacher efficacy from the teachers' perspective and to understand teachers' perspectives of the impact of professional learning communities. The qualitative data collected from individual interviews with each participant gave detailed description and reflection of what teachers believe impacted their professional learning community. Understanding teachers' perspectives is vital the sustainability of the PLC and to successful change within the school (DuFour, DuFour, & Eaker, 2004; Funda, 2009; Griffiths, Gore & Ladwig, 2006; Hipp & Huffman, 2003). The findings of this study showed teachers perceive a positive relationship between professional learning communities and teacher efficacy. The five participants in this study shared experiences of their participation in PLCs and

the ways their involvement in the PLC impacted their self-efficacy and their teaching practice. From the results of the individual interviews of the participants, seven primary themes were identified as indicators of the participants' perceptions of the relationship between professional learning communities and teacher efficacy. These themes included: (a) collaboration; (b) feelings of isolation; (c) impact on students; (d) professional trust; (e) continued learning; (f) shared beliefs; and (g) creativity in practice.

Each of the participants shared their perspectives on the relationship between professional learning communities and teacher efficacy and how participating in these learning communities affected their own practice. Additionally, participants discussed factors that either positively or negatively affected the learning communities and teachers' perceptions of what is needed to implement a professional learning community effectively. These factors included the amount of time leadership provided for PLC work, opportunities to share practice and peer coaching, the creation of a positive culture, and whether leaders communicated their vision effectively. The participants indicated a need for leaders to provide designated time for the sharing of practice, peer observation and collaboration.

Collaboration. The dominant theme that all five participants discussed in depth was collaboration. The collaborative nature of professional learning communities allowed teachers to better understand their craft and try new ways of teaching. This practice built confidence in their ability to positively impact student learning. Based on the interview results, teachers in an international setting with diverse backgrounds and experiences found that PLCs allow teachers to become more cohesive as a group in understanding their beliefs about the practice. According to Murphy and Lick (2005), professional learning communities require discussion and collaboration and it is this relationship that builds efficacy in teachers. Each participant shared their views on

the importance that collaboration plays in teacher efficacy and the relationship between professional learning communities and collaboration. Ysabel* spoke extensively about her belief that the collaboration she experienced through her PLC helped her to be a better teacher.

If I had to do this on my own, there's no way any amount of research would be as effective a learning tool as discussing ideas and strategies with other teachers. Even though the PYP instills this sense of collaboration and expects us to collaborate on each of the units, the [professional learning] community gives me the opportunity to get ideas about more specific questions I have. They might not be about the unit. It might be about a problem I have. The IB's expectation set me up to do this, but the PLC was a place dedicated to a specific problem.

Similarly, Mary* and Carl* both suggested that collaboration is the cornerstone of teacher efficacy. Mary* stated, "While there are many factors that affect the level of efficacy in a school, it is really the teamwork and cooperation of teachers that build this." Carl* thought the same, "In schools where teachers really believe in what they do, you will see groups of them comparing strategies, discussing students, whatever concerns them, to find answers to problems. This is what really makes the difference." David* and Freida* shared this same concept.

I've worked in PYP schools for many years. We collaborate on six units that integrate across subjects. This set us up to truly understand collaboration. But what really made me believe what I do makes a difference, is the collaboration in my professional learning communities.

This data informed us that from teacher perspectives, collaboration is an integral part of teacher efficacy, and though the Primary Years Programme created the framework for collaboration on particular units, it was the collaboration working on specific concerns that built

teacher efficacy. To build teacher efficacy across the school, school leaders and teacher leaders alike must instill a collaborative culture within the school to build collective teacher efficacy. The findings within the participants' interviews showed the connection participants made between efficacy and collaboration.

Feelings of isolation. One of the most challenging aspects of teaching that hinders professional growth is teacher isolation (Lam, Yim, & Lam, 2002). In turn, these feelings of isolation hinder teacher efficacy. Teachers often feel they are alone in their endeavors, spending the majority of their day in classrooms with students with little time to share ideas or discuss concerns. However, the participants identified one effect of a professional learning community as a reduction in their feeling of isolation and the expectation they had to solve problems on their own. Regardless of the years of experience of participants, teachers indicated they often felt alone in their teaching practice. Freida*, with 29 years teaching experience, and Ysabel*, with three years teaching experience, shared the concern of feeling isolated in their teaching. Freida* discussed that she was able to make the connection between professional learning communities and feeling less isolated after one PLC finished for the school year and she was not yet part of another. "I really missed feeling connected to other professionals. I was so excited when I had the opportunity to be involved in another PLC because I thought 'I won't be on my own any more'". Ysabel* spoke of her comparison to colleagues also new to teaching who felt alone, yet she felt connected to more experienced teachers because of her involvement in her PLC, "and this really made a difference in me becoming a better teacher and feeling like I could make a difference even early in my career."

David* shared his initial skepticism, how this skepticism later turned to excitement about being part of a PLC and how this made a difference for him.

At first, I was skeptical--just another meeting. But once we identified topics, I got excited. Other teachers had similar concerns or similar goals. I didn't feel so alone any more. I couldn't believe what a difference this made not just in my actual practice but in how I felt about it [my practice]. In the PYP, we meet every so often to discuss how we can integrate our units of inquiry and that's great. But meeting about specific concerns, this made a big difference.

This finding indicated that teachers perceive the feeling of reduced isolation to be integral to teacher efficacy. However, to gain this feeling it took more than having other adult conversations but involved the need to share concerns and find solutions with other professionals. Therefore, it is important for educators at all levels to seek and create opportunities for teachers not only to discuss curriculum, but to share problems and answers to these problems as well.

Impact on students. The ability to positively impact student learning has a direct impact on teacher efficacy (Goddard, Hoy, & Hoy, 2004). Teachers' perceptions of the link between professional learning communities and improved student learning connect the PLC to teacher efficacy. David* discussed how his participation in a PLC increased his confidence and made a difference in how he presents to his students. While the attitudes taught in the Primary Years Programme are important and support his teaching, the PLC offered strategies in how to model these attitudes to support students in their learning. "The more I learn, the more it affects the kids.... and so, I want to learn more. This really inspires me and makes me feel good" (David).

Mary* also shared that the increase in her students' reading ability was directly related to her learning in her PLC and this helped her understand she was making a real difference to these students. "I look at the improvement in my kids' reading and I think 'I did that'". The

remaining three participants, Ysabel*, Carl*, and Freida*, shared similar views. They believed that what they were able to learn from their PLC made a difference to their students, which made them feel good about what they do.

These findings indicated the importance of teachers' perceptions of positively impacting student learning on their belief in the ability to make a difference with their teaching.

Additionally, teachers felt their experiences from professional learning communities allowed them more opportunity to help students in their learning journey.

Professional trust. Another key to increasing teacher efficacy, according to teachers, is building professional trust (Eaker & Keating, 2008; Fullan, 2007; Klassen, Tze, Betts, & Gordon, 2011; Servage, 2008). Especially in international schools where teachers come from diverse backgrounds, different education systems, and are outside the comfort of their home country, teachers felt an additional need for trust from both administrators and colleagues. The participants in the study felt this professional trust was built more quickly from participation in a professional learning community. Carl shared,

I know that schools build trust over time, regardless of whether they have PLCs. If the school climate is such that teachers support each other rather than compete, it will happen. But when teachers are part of a [professional] learning community, this trust happens more quickly and even more intensely.

Three other participants discussed their belief that professional learning communities help to increase professional trust and that trust is an important to their belief in themselves as quality educators. The perception of these teachers also indicated that not only was trust between colleagues important, but trust from administrators was just as important in building teacher efficacy.

I have to depend on my principal, the curriculum director, even the superintendent of the school. . . We all have to share in the PLC together in some way for it to work. And when that happens, it definitely affects it in a positive way (Freida*).

This finding illustrated the need for trust within a school to build teacher efficacy. This trust can be built through the positive relationships that are created in professional learning communities, not only with the teachers in the PLC but with all levels of administrators in their positive involvement in the professional learning community as well.

Continued learning. According to Strahan (2003) and Morrissey (2000), there is an increase in the expectation for teachers' accountability in staying current in their practice. Each participant in the study discussed the importance of continued professional learning on teacher efficacy and the relationship the professional learning community had with their own continued learning. "Teachers must stay current with pedagogy and when this happens, we know we're doing what's right for our students" (Carl*). Professional learning communities provided a venue for teachers to discuss current research and strategies allowing them to feel they are making a difference in the field of education.

Through their interviews, participants shared their belief in how their experience in a professional learning community builds teacher efficacy. This type of continued learning allows teachers to work with a variety of other professionals in their field, to share ideas on new research and to discuss strategies they have used, but most importantly, professional learning communities offered them a way to find the belief they are, in fact, effective at what they do and to be inspired by their own knowledge and the knowledge of others.

Shared beliefs. Having a shared vision is an important element in a PLC (DuFour et al., 2010; Kruse, 1995) as well as for teacher efficacy (Senge et al., 2012). While the Primary Years

Programme provided a framework of beliefs about teaching and learning, the PLC was a vehicle for deep discussion and learning. David* stated,

I understand the pedagogy of the PYP and stay up-to-date on best practice and as teachers we discuss this in meetings. But it is really in the PLC that we are able to get more specific about particular topics that we share. That's where we really get into the nitty gritty of what we're doing and can learn.

Mary* agreed, "Rather than just getting some surface knowledge, we can take one idea we have and go deep". This depth allowed the discussion within the PLC to connect teachers to one another through their shared practice. This was especially important in an international setting where teachers come from diverse backgrounds with a plethora of experiences and beliefs about teaching and learning. Each of the five participants expressed the importance of having a shared belief that brought the teachers in their schools together and the positive role the PLC played in creating opportunities to understand their shared beliefs.

Creativity in practice. Professional learning communities allow teachers to enhance their teaching ability through creativity. The participants discussed the relationship between using creativity in their practice and feeling that their practice is making a positive impact. By sharing ideas within the PLC, teachers gained confidence to experiment with new strategies and take risks in their teaching. Even though every try may not be successful, these creative endeavors opened teachers' minds to new ways of teaching, which led to an increase in efficacy. Ysabel* expressed this as,

I love when I get to try something new I learned from someone in my PLC. I don't feel stuck using the same old way of doing things. And when I am excited about the lesson, so are the kids. It definitely makes a difference - to me, to the kids, to the learning.

This finding in the study allowed us to understand that teachers view creativity in their practice as an important aspect in how they feel they can make a difference to students and to their own learning. Being creative gives teachers more opportunities to experiment with new teaching strategies and builds their self-confidence (Shaughnessy, 2004). Through data from the interviews, learning from professional learning communities has been linked to creativity and experimentation to improve their practice. Through this experimentation, participants discovered more effective strategies for teaching and learning and were able to increase student achievement, which increased their confidence and self-efficacy; therefore, this improvement of practice is then linked to an increase in teacher efficacy (Shaughnessy, 2004).

Based on data from five international school teachers offering the International Baccalaureate Primary Years Programme, there is a positive relationship between participation in a professional learning community and teacher efficacy. The primary reasons for this relationship is a greater level of collaboration among teachers, lessened feelings of isolation, and understanding of shared beliefs.

Other findings.

Attitude. The participants also indicated that participation in a PLC improved teacher attitude, decreased their stress levels, and increased student learning which gave them a stronger belief that what they do makes a positive difference to students. Ysabel* and Freida* stated their participation in a PLC made them feel better about themselves both personally and professionally and Mary* and Carl* discussed how their involvement in a PLC positively impacted their overall demeanor. Teachers with a more positive outlook are in a frame of mind to learn and are highly motivated.

Stress. Stress and anxiety can have a negative effect on job performance and teacher efficacy (Borg, 2010; Cummings & Worley, 2008). Carl* and David* shared that speaking to other teachers in their PLC reduced their anxiety about student concerns and reduced stress. Freida* also shared her views on this effect of her PLC,

There are different times of year that are quite stressful even for the most experienced teacher. When you are part of a [professional] learning community, you can discuss what's bothering you, which reduces the stress. With less stress, then, I can focus on what's really important in the classroom- my kids.

These teacher perceptions inform leaders that implementing PLCs effectively can also support teachers by lessening stress and anxiety freeing them to spend more time on aspects of the job and focus on the students.

Time, purpose, and support. Throughout their interviews, the participants intermittently discussed the role the implementation of a PLC played in teacher efficacy. Teachers felt a need for time to be allocated specifically for a professional learning community to meet as well as time to share practice and observe peers. "I feel that if I had time to see other teachers in action, I would learn even more," (Ysabel). Other participants agreed and it was added that time must be set aside if administrators truly value the work of the PLC. Freedom to choose the topic of the PLC was also mentioned.

The data above indicated a need for school leaders setting the stage for professional learning communities to carefully plan the guidelines teachers will follow in their PLC. Teachers must have reasonable control over topics on which they will focus and plans for specific time for groups to meet and for teachers to share their practice must be carefully considered prior to the implementation of the PLCs.

Limitations

The study was limited to teachers in international schools offering the Primary Years Programme, which requires a high level of collaboration to maintain their IB accreditation for the school. To be an authorized IB school, all teachers are required to take part in structured collaborative planning as well as collaboratively reflect on each unit. Additionally, a collaborative annual horizontal and vertical alignment of the curriculum must take place with all teachers. This study gave the perspective of teachers within this type of working environment.

Additionally, this case study consisted of five participants and findings were limited to the perceptions of the experience of these five participants within their own school setting. The participants were from diverse backgrounds and varied teaching experiences in international settings and varied number of years of teaching experience. The five participants' teaching experience ranged from 2 years to twenty-nine years with 12.2 years being the average number of years teaching and the length of time spent in professional learning communities varied from 1 to 7 years. Three participants were female and 2 were male.

The study assumed the participants completed the surveys, interview questions and reflections honestly. Furthermore, the timeframe of the study for data collection and comparison was four to six months.

Implication of the Results for Practice

Participants discussed feelings and perspectives about the implementation and utilization of professional learning communities as well as the role that effective implementation played in their self-efficacy. The data indicated that even when the current level of teacher efficacy is high, participation in professional learning communities continued to elevate the level of teacher efficacy even further. This understanding demonstrated that creating a positive culture with

systems in place such as collaboration, shared goals, and professional trust build teacher efficacy but this efficacy can be further increased through professional learning communities that provide opportunities for professional learning in environments where teachers feel valued and their practice is valuable (Easton, 2011). It also indicated that teachers were able to improve their practice, positively impact student learning, and develop goals through participation in a PLC.

Educational practice. With this data from teachers' perspectives, we can understand the importance of creating a collaborative culture of trust. Schools that utilize professional learning communities effectively gain far more than a positive school culture (Fullan, 2007; Servage, 2008). It is the belief in one's ability that motivates teachers to improve practice and take steps to increase student achievement. It is vital to educational practice that teachers build trusting relationships with colleagues rather than allow themselves or their colleagues to feel isolated in the classroom. It is through collaboration and continued learning that teachers are able to establish shared beliefs, build trusting relationships and share practice. Establishing these elements as the culture of the school will positively impact student learning and teacher efficacy (Easton, 2011; Jackson, 2006; Jackson & Temperley, 2007; Michelman, 2012).

Leadership. Data also indicated that leaders must carefully consider factors that affect teacher efficacy. From teachers' perspectives, leaders provide resources and guidelines for what they value. School administrators must strategically plan the implementation of professional learning communities so that teachers are able to share their practice. It is not enough to expect teachers to participate in professional learning communities. Each participant discussed that leaders must allocate time for teachers to identify concerns and share their practice in a meaningful way with their peers. By doing so, leaders build professional trust with and among their teachers, creating shared beliefs. Data from the interviews also indicated that leaders must

give teachers freedom to use their creativity in their teaching practice so they develop strategies that will positively impact student learning.

Leaders expect teachers to increase student achievement. This goal is more likely achieved when teachers participate in effective PLCs. The most effective schools have leaders that are also learners (Sergiovanni, 2008), but in this study, we gained more insight into the perceptions of teachers, who shared they place greater importance on leaders supporting the professional learning community through time, autonomy, and resources over leaders as learners participating in PLCs. Therefore, it is imperative that school leaders put these values at the forefront of the implementation of professional learning communities.

Recommendations for Further Research

Each of the participants discussed suggestions that enhanced or hindered his PLC experience. Based on the perspectives of the participants, one recommendation for further study would be to examine the factors that teachers perceive to help or hinder the implementation of Professional Learning Community. School leaders want the results of teacher participation in PLCs (Barth, 1991; Darling-Hammond, 1996; Newmann & Wehlage, 1995) to be effective and by understanding the factors that may hinder or enhance this will inform how they implement Professional Learning Communities within their school.

Participants in this study were all within schools that offer the International Baccalaureate Programme, which requires a high level of collaboration. It is recommended to compare efficacy in schools that hold different expectations for collaborative teamwork expected of teachers. A second recommendation from this study would be a comparison of different types of schools: those schools with a set requirement for collaboration, those of a more traditional set-up in which collaboration is not expected or even encouraged, and schools in which there may be a negative

climate toward collaboration. By comparing school expectations in school culture and climate as well as toward levels of collaboration, the field of education would be informed on the impact of school culture on teacher efficacy.

Conclusion

To summarize this research, teachers from five different international schools who have participated or are currently participating in professional learning communities were part of this study. Data was collected from the TSES survey, PCLA-R survey, and individual interviews to study the perceptions of international teachers toward the relationship between professional learning communities and teacher efficacy and the impact of these PLCs. The data was analyzed and themes and patterns identified.

Based on the findings in this study, international teachers perceive the relationship between professional learning communities and teacher efficacy as a positive growth experience. Teachers discussed how their participation in a PLC helped to build their capacity as teachers, build confidence, impacted student achievement, relieved feelings of isolation, and supported their professional learning. Within the findings, teachers also discussed factors that enhance or challenge the success of a professional learning community. Additionally, this study adds to current literature that supports when a PLC is implemented with a shared vision and with supportive conditions, teachers have a positive experience and their self-efficacy increases. The study adds the perspective of international teachers who specifically teach in schools offering the Primary Years Programme of the International Baccalaureate Organization.

The recommendations from this study included specifically studying factors that impact the success of implementation of professional learning communities from a teacher perspective

and researching the impact of having a set expectation or requirement for collaboration among teaching staff on professional learning communities and teacher efficacy.

References

- Annenberg Institute for School Reform (2004). *Professional learning communities: Professional development strategies that improve instruction*.
www.anenberginstitute.org/images/ProfLearning.pdf.
- Ashton, P. (1984). Teacher efficacy: A motivational paradigm for effective teacher education. *Journal of Teacher Education* 35(5), pp. 28-32.
- Avalos, B. (2010). Teacher professional development in Teaching and Teacher Education over ten years. *Teaching and Teacher Education* 27(1), 10-20.
- Ball, D. L. (1996). Teacher learning and the mathematics reforms: What do we think we know and what do we need to learn? *Phi Delta Kappan*, 77, 500-508.
- Ball, D. L., & Cohen, D. K. (1999). Developing practice, developing practitioners: Toward a practice-based theory of professional education. In G. Sykes and L. Darling-Hammond (Eds.), *Teaching as the learning profession: Handbook of policy and practice* (pp. 3–32). San Francisco, CA: Jossey Bass.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: the exercise of control*. New York, NY: Freeman.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28(2), 117-148.
- Barth, R.S. (1990). *Improving schools from within*. San Francisco, CA: Jossey-Bass Publishers.
- Barth, R. (2002). The culture builder. *Educational Leadership*, 59(8), 6–11.
- Berliner, B. (1997). What it takes to work together: The promise of educational partnerships. *WestEd Knowledge Brief*, 14, 1-6.

- Berry, B; Daugherty, A. & Wieder, A. (2009). Collaboration: Closing the effective teaching gap. *CTQ: Center for Teacher Quality*.
- Bertsch, C.C. (2012). *Perceptions of supportive leadership behaviors for professional learning communities in secondary schools* (Doctoral dissertation, California State University, Fullerton). Retrieved from ProQuest Dissertations and Theses.
- Black, S. (1998). Money and the art of staff development. *Journal of Staff Development*, 19(2), 14–17.
- Bogdan, R., & Biklen, S. (2007). *Qualitative research for education: An introduction to theories and methods* (5th ed). Boston, MA: Allyn and Bacon.
- Borg, M. J. (2010). Occupational stress in British educational settings. *Educational Psychology*, 10, 103-126.
- Breault, R. A. (2010). Distilling wisdom from practice: finding meaning in PDS stories. *Teaching and Teacher Education*, 26(3), 399-407.
- Bunker, V.J. (2008). *Professional learning communities, teacher collaboration, and student achievement in an era of standards based reform* (Doctoral dissertation, Lewis & Clark College). Retrieved from ProQuest Dissertations and Theses.
- Buyse, V., Sparkman, K.L., & Wesley, P.W. (2003, Spring). Communities of practice: Connecting what we know with what we do. *Exceptional Children*, 69(3), 263–277.
- Carver, D. (2005). Fostering development: Moving towards a Professional Learning Community.
- Chance, P. L., & Segura, S. N. (2009). A rural high school's collaborative approach to school improvement. *Journal of Research in Rural Education*, 24(5), 1-12.
- Chrispeels, J. (2004). *Learning to lead together: The promise and challenge of sharing leadership*. Thousand Oaks, CA: Sage.

- Covey, S., Merrill, A., & Merrill, R. (1996). *First things first: To live, to love, to learn, to leave a legacy*. New York, NY: Fireside.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed). Thousand Oaks, CA: Sage.
- Cummings, T. G. & Worley, C. G. (2008). *Organization Development and Change* (9th ed). Mason, OH: Cengage Learning.
- Curry, M. (2008). 2 Critical Friends Groups: The possibilities and limitations embedded in teacher critical friends groups aimed at instructional improvement and school reform. *Teachers College Record*, 110(4), 733–774.
- Danielson, C. (2002) *Enhancing student achievement: A framework for school improvement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Darling-Hammond, L., (1993). Reframing the school reform agenda. *Phi Delta Kappan*, 74(10), 752–761.
- Darling-Hammond, L., & Goodwin, A. L. (1993). Progress towards professionalism in teaching: In *Challenges and achievements of American education. The 1993 ASCD yearbook*, 19–52. Alexandria, VA: Association for Supervision and Curriculum Development.
- Darling-Hammond, L. (2007). Race, inequality and educational accountability: The irony of No Child Left Behind. *Race, Ethnicity & Education*, 10(3), 245–260.
- Darling-Hammond, L. (1996). What matters most: A competent teacher for every child. *Phi Delta Kappan*, 78(3), 193–200.

- Darling-Hammond, L. (1998). Teacher learning that supports student learning. *Educational Leadership*, 55(5), 6–11.
- Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. Dallas, TX: National Staff Development Council.
- Davis, H., & Andrzejewski, C. (2003). *Teacher beliefs*. Education.com. Retrieved from <http://www.education.com/print/teacher-beliefs/>.
- DeCharms, R. (1968). *Personal causation: The internal affective determinants of behavior*. New York, NY: Academic Press.
- DiPaola, M. F., & Hoy, W. K. (2014). *Improving instruction through supervision, evaluation, and professional development*. Charlotte, NC: Information Age Publishing.
- Drucker, P. (1992). *Managing for the future: The 1990s and beyond*. New York, NY: Truman Talley Books.
- DuFour, R. (1999). Game Plan. *JSD The Learning Forward Journal*, Spring 1999, National Staff Development Council: Learningforward.org.
- DuFour, R.P. (1999). Help wanted: Principal who can lead professional learning communities. *National Association of Secondary School Principals*, 83(604), 12–17.
- DuFour, R. (2004). What is a “professional learning community”? *Educational Leadership*, 61(8), 6–11.
- DuFour, R. (2006). *Learning by doing: A handbook for professional learning communities at work*. Bloomington, IN: Solution Tree Press.
- DuFour, R., DuFour, R., & Eaker, R. (2008). *Revisiting professional learning communities at work*. Bloomington, IN: Solution Tree.

- DuFour, R., DuFour, R., Eaker, R., & Many, T. (2006). *Learning by doing: A handbook for professional learning communities at work*. Bloomington, IN: Solution Tree.
- DuFour, R., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. Bloomington, IN: National Education Service.
- DuFour, R., Eaker, R., & DuFour, R. (2005). *On Common Ground*. Bloomington, IN: National Educational Service.
- DuFour, R., DuFour, R., Eaker, R., & Karhanek, G. (2010). *Raising the Bar and Closing the Gap*. Bloomington, IN: Solution Tree Press.
- Eaker, R. & Keating, J. (2008). A shift in school culture. *Journal of Staff Development*, 29(3), 14-17.
- Easton, L. B. (2011). *Professional learning communities by design: Putting the learning back into PLCs*. Thousand Oaks, CA: Corwin.
- Everston, C. M. & Weinstein, C. S. (2013). *Handbook of classroom management: Research, practice, and contemporary issues*. New York, NY: Routledge.
- Fogarty, R., & Pete, B. (2009). Professional learning 101: A syllabus of seven protocols. *Phi Delta Kappan*, 91(4), 32–34.
- Fosnot, C. T. (2005). *Constructivism: Theory, perspectives and practice* (2nd ed.). New York, NY: Teachers College Press.
- Fullan, M. G. (1991). *Professional development of educators*. In M. G. Fullan, The new meaning of educational change (pp. 315-344). New York, NY: Teachers College Press.
- Fullan, M. (1992). Visions that blind. *Educational Leadership*, 49(5), 19–22.

- Fullan, M. (1993). *Change forces: Proving the depths of educational reform*. London, UK: Falmer Press.
- Fullan, M. (1995). The school as a learning organization: Distant dreams. *Theory Into Practice*, 34(4), 230.
- Fullan, M. (1996). Turning systemic thinking on its head. *Phi Delta Kappan*, 77, 420–423.
- Fullan, M. (2005). *Leadership & sustainability: System thinkers in action*. Thousand Oaks, CA: Corwin Press.
- Fullan, M. (2007). *The new meaning of educational change* (4th Ed). New York, NY: Teachers College Press.
- Fulton, K. (2003). Redesigning schools to meet 21st century learning needs. *T.H.E. Journal*, 30(9), 30–32, 34, 36.
- Funda, S. A. (2009). Teacher beliefs and practice in science education. *Asia- Pacific Forum on Science Learning and Teaching*, 10(1), Article 12.
- Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915-945.
- Gay, L. R., Mills, G. E., & Airasian, P. (2006). *Educational research: Competencies for analysis and applications*. Upper Saddle River, NJ: Pearson Education.
- Gerring, J. (2007). *Case study research: Principles and practice*. New York, NY: Cambridge University Press.
- Goddard, R.D. (2001). Collective efficacy: A neglected construct in the study of schools and student achievement. *Journal of Educational Psychology*, 93(3), 467-476.

- Goddard, R. D., Hoy, W. K., & Woolfolk Hoy, A. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal*, 37, 479-508.
- Goddard, R. G., Hoy, W. K., & Woolfolk Hoy, A. (2004). Collective efficacy: Theoretical development, empirical evidence, and future directions. *Educational Researcher*, 33, 3-13.
- Goddard, Y. L., & Goddard, R. D. (2007). A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teacher College Record*, 109(4), 877–896.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597–606.
- Goldring, E., Porter, A., Murphy, J., Elliot, S., and Cravens, X. (2007). *Assessing learning centered leadership: Connections to research, professional standards, and current practices*. Nashville, TN: Learning Science Institute, Vanderbilt University.
- Graham, P. (2007). Improving teacher effectiveness through structured collaboration: A case study of a professional learning community. *Research in Middle Level Education Online*, 31(1), 1-17.
- Griffiths, T., Gore, J., & Ladwig, J. (2006). *Teachers' fundamental beliefs, commitment to reform, and the quality of pedagogy*. Paper prepared for presentation at Australian Association for Research in Education Annual Conference. Adelaide, November 26-30, 2006.
- Gunter, M., Estes, T., & Schwab, J. (2007). *Instruction: A models approach* (5th ed.). Boston, MA: Allyn Bacon.

- Guskey, T. (1998). Teacher efficacy measurement and change. *Annual Meeting of the American Educational Research Association*. San Diego.
- Guskey, T. (2003). What makes professional development effective? *Phi Kappan*, 48(10), 748–750.
- Guskey, T. (2006). Exploring the relationship between staff development and improvements in students learning. *Journal of Staff Development*, 76, 34–38.
- Hall, G., and Hord, S. (2001). *Implementing Change: Patterns, Principles, and Potholes*. Boston, MA: Allyn & Bacon.
- Harris, A. (2002). Improving schools through teacher leadership. *Educational Journal*, 59, 22–23.
- Hatch, J. (2002) *Doing qualitative research in education settings*. Albany, NY: State University of New York Press.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses related to student achievement*. New York, NY: Routledge.
- Haynes, N. M. (1998). Lessons learned. *Journal of Education for Students Placed at Risk*. *Special Issue: Changing Schools for Changing Times: The Comer School Development Program*, 3(1), 87-99.
- Hemphill, S., & Duffield, J. (2007). Nuts and bolts of a district improvement effort in Maryland canters on the staff development teacher. *Journal of Staff Development*, 28(1), 50–53.
- Hickman, P., Schrimpf, M., & Wedlock, D. (2009). A problem based learning project investigating the underlying dimensions of professional learning communities in public primary and secondary schools in the state of Missouri. (Doctoral dissertation, Saint Louis University). Retrieved from ProQuest Dissertations and Theses.

- Hipp, K.A., & Huffman, J.B. (2003). *Two professional learning communities: Tales from the field*. In S. M. Hord (Ed.), *Learning together, Leading together*. New York, NY: Teachers College Press.
- Hipp, K., & Huffman, J. (2010). *Demystifying professional learning communities: School leadership at its best*. Lanham, MD: Rowan & Littlefield.
- Hirsh, S., & Hord, S. M. (2008). Leader & learner. *Principal Leadership: High School Edition*, 9(4), 26–30.
- Hord, S. (1995). *Learning together, leading together: Changing schools through professional learning communities*. New York, NY: Teachers College Press, Huffman.
- Hord, S. M. (1997). *Professional learning communities: What are they and why are they important?* Austin, TX: Southwest Educational Development Laboratory.
- Hord, S. M. (Ed.). (2004). *Learning together, leading together: Changing schools through professional learning communities*. New York, NY: Teachers College Press.
- Hord, S., & Sommers, W. (2007). *Leading Professional Learning Communities: Voices from research and practice*. Thousand Oaks, CA: Corwin Press.
- Hord, S.M., & Sommers, W.A. (2008). *Leading professional learning communities: Voices from research and practice*. Oxford, OH: National Staff Development Council.
- Hord, S.M. (2009). Professional learning communities. *Journal of Staff Development*, 30(1), 40-45.
- Hoy, A. W. (2000). *Changes in teacher efficacy during the early years of teaching*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans.

Hoy, W.K. & Miskel, C.G. (2005). *Educational administration: Theory, research, and practice*. New York, NY: McGraw Hill.

Hoy, A. W., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education*, 21, 343–356.

Huffman, J. (2003). The role of shared values and vision in creating professional learning communities. *NASSP Bulletin*, 87(637), 21–34.

International Baccalaureate Organisation. (2015). Education for a better world. Retrieved from www.ibo.org.

Jackson, D. (2006, December). Networked learning communities: Setting school to school collaboration within a system context. Paper No. 159 provided through the *Centre for Strategic Education Seminar Series*. Nottingham, UK: National College for School Leadership.

Jackson, D., & Temperley, J. (2007, January). From professional learning community to networked learning community. In L. Stoll & K. S. Louis (Eds.), *Professional learning communities: Divergence, depth and dilemmas* (pp. 45–62). New York, NY: Open University Press.

Joyce, B. R., & Showers, B. (2002). *Student Achievement Through Staff Development (3rd ed.)*. Alexandria, VA: Association for Supervision and Curriculum Development.

Kalin, J., & Zuljan, M.V. (2007). Teacher perceptions of the goals of effective school reform and their own role in it. *Educational Studies*, 33(2), 163–175.

- Klassen, R. M., Tze, V. M., Betts, S. M., & Gordon, K. A. (2011). Teacher efficacy research 1998-2009: Signs of progress or unfulfilled promise? *Educational Psychology Review* 23(1), 21–43.
- Kruse, S.D., Louis, K.S. & Bryk, A.S. (1995). An emerging framework for analyzing school-based professional community. In K.S. Louis, S. Kruse & Associates (eds). *Professionalism and community: Perspectives on reforming urban schools*. Long Oaks, CA: Corwin.
- Kvale, S., & Brinkmann, S. (2009). *InterViews: Learning the craft of qualitative research interviewing*. Thousand Oaks, CA: Sage.
- Lam, S., Yim, P., & Lam, T. W. (2002). Transforming school culture: Can true collaboration be initiated? *Educational Research*, 44(2), 181–195.
- Lambert, L (2003). Leadership capacity for lasting school improvement. Association for Supervision and Curriculum Development: Alexandria, VA.
- Leigh, A., & Mead, S. (2005). Lifting teacher performance. *Progressive Policy Institute Policy Report*, 1–18.
- Leithwood, K., & Louis, K.S. (1998). *Organizational learning in schools*. Lisse, Netherlands: Swets & Zeitlinger.
- Lezotte, L.W. & McKee, K.M. (2002) *Assembly required: A continuous school improvement system*. Okemos, MI: Effective School Products, Ltd.
- Linder, R.A., Post, G., & Calabrese, K. (2012). Professional learning communities: Practices for successful implementation. *Delta Kappa Gamma Bulletin*, 78(3), 13–22.
- Little, J. W. (1994). Teachers' professional development in a climate of educational reform. *Educational Evaluation and Policy Analysis*, (15)129-151.

- Loucks-Horsley, S., Hewson, P., Love, N., & Stiles, K. (1998). *Designing professional development for teachers of science and mathematics*. Thousand Oaks, CA: Corwin Press.
- Louis, K., & Marks, H. (1998). Does professional community affect the classroom? Teachers' work and student experiences in restructuring schools. *American Journal of Education*, 106(4), 532–575.
- Louis, K. S., Marks, H., & Kruse, S. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal*, 33(4), 757–798.
- Lujan, N., & Day, B. (2010). Professional learning communities: Overcoming the roadblocks. *Delta Kappan Gamma Bulletin*, 76(2), 10–17.
- Marshall, C., & Rossman, G. (2006). *Designing qualitative research*. Thousand Oaks, CA: Sage Publication.
- Marzano, R. J., Pickering, D., & Pollock, J.E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement*. Alexandria, VA: Association for Supervision and Curriculum Development .
- Mawhinney, H. B. & Haas, J. C. (2005). Design principles for learning centered schools: Developing professional learning communities to improve student learning. Council of Educational Administrative & Supervisory Organizations of Maryland.
- McCaffrey, D., Lockwood, J., Koretz, D., & Hamilton, L. (2003). *Evaluating value-added models for teacher accountability*. Santa Monica, CA: RAND Corporation.
- McClelland, D. (1961). *Human Motivation*. New York: Cambridge University Press.
- McIntyre, D. J., & Byrd, D. M. (2000). *Research on models of effective models for teacher education*. Thousand Oaks, CA: Corwin Press.

- McLaughlin, M. W., & Talbert, J. E. (1993). *Contexts that matter for teaching and learning*. Stanford: Center for Research on the Context of Secondary School Teaching, Stanford University.
- McMillian, J. H. (2012). *Educational research: Fundamentals for the consumer (6th ed.)*. Boston, MA: Pearson Education, Inc.
- Merriam, S. (1988). *Case study research in education: A qualitative approach*. San Francisco, CA: Jossey-Bass.
- Merriam, S. B. (1998). *Qualitative research and case study: Applications in education*. San Francisco, CA: Jossey-Bass.
- Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis*. San Francisco, CA: Jossey-Bass.
- Michelman, B. (2012). *The never-ending story of ESEA reauthorization*. Retrieved from http://www.ascd.org/publications/newsletters/policy_priorities/vol18/num01/The_Never-Ending_Story_of_ESEA_Reauthorization.aspx
- Mizell, H. (2010). The misuse of professional development. *Education Week*, 30(4), 22–23.
- Moll, L. (1990) Introduction, In L.C.
- Mojavezi, A. & Tamiz, M. P. (2012). The impact of teacher self-efficacy on the students' motivation and achievement. *Theory and Practice in Language Studies* 2(3), pp 483-491.
- Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology* (pp. 1–27). New York, NY: Cambridge University Press.
- Morgan, J. (2010). An evaluation of the process and outcomes of teacher collaboration in vocabulary instruction (Doctoral dissertation, University of Massachusetts Amherst). Retrieved from ProQuest Dissertations and Theses.

- Morrissey, M. (2000). *Professional learning communities: An ongoing exploration*. Southwest Educational Development Laboratory. Retrieved from www.sedl.org.
- Murphy, C., & Lick, D. (2004). *Whole-faculty study groups: Creating professional learning communities that target student learning* (3rd ed.). Thousand Oaks, CA: Sage.
- National Staff Development Council. (2007). *Stand for: Learning forward*. Retrieved from Learning Forward: <http://www.learningforward.org/standfor/definition.cfm>
- Newmann, F., & Wehlage, G. (1995). Successful school restructuring: A report to the public and educators by the Center of Restructuring Schools. In R. DuFour, R. Eaker, & R. DuFour (Eds.), *On common ground: The power of professional learning communities*. Bloomington, IN: National Educational Service.
- Newmann, F. (1996). *Authentic achievement: Restructuring schools for intellectual quality*. San Francisco, CA: Jossey Bass Publishers.
- Olivier, D., & Hipp, K. (2008). Assessing and analyzing schools as PLCs. In K. Hipp, & J. Huffman, *Professional learning communities: Purposeful actions, positive results*. Lanham, NJ: Rowman & Littlefield.
- Olivier, D. F., Hipp, K. K., & Huffman, J. B. (2003). Professional learning community assessment. In J. B. Huffman & K. K. Hipp (Eds.). *Reculturing schools as professional learning communities*. Lanham, MD: The Scarecrow Press.
- Oliver, D., Hipp, K., & Huffman, J. (2010). Professional learning community assessment. In J. Huffman & K. Hipp. *Reculturing schools as professional learning communities* (pp. 66–74). Lanham, MD: Scarecrow Education.

- Olivier, D.F., Antoine, R., Cormier, R., Lewis, V., Minckler, C., & Stadalis, M. (2009). *Assessing schools as professional learning communities*. Paper presented at Assessing Schools as Schools as Professional Learning Communities Symposium.
- O'Sullivan, M. C. (2002). Action research and the transfer of reflective approaches to in-service education and training (INSET) for unqualified and underqualified primary teachers in Namibia. *Teaching and Teacher Education*, 18(5), 523–539.
- Patton, M. (2002) *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Penuel, W., Fishman, B., Yamaguchi, R., & Gallagher, L. (2007, December). What makes professional development effective? Strategies that foster curriculum implementation. *American Educational Research Journal*, 44(4), 921–958
- Pugach, C., Blanton, P., & Correa, I.V. (2011) A historical perspective on the role of collaboration in teacher education reform: Making good on the promise of teaching all students. *Teach Education and Special Education*, 34(3), 183–200.
- Rivkin, S., Hanushek, E., & Kain, J. (2005). Teachers, schools, and academic achievement. *Econometrica*, 73(2), 417–458.
- Roberts, S., & Pruitt, E. (2003). *Schools as professional learning communities: Collaborative activities and strategies for professional development*. Thousand Oaks, CA: Corwin.
- Rogus, J. F. (1990). Developing a vision statement. Some considerations for principals. *NASSP Bulletin*, 74, 6-14.
- Rosenholtz, S. J. (1989). Teachers' workplace: The social organization of schools. New York, NY: Longman.

- Ross, R., Smith, B., & Roberts, C. (1994). The team learning wheel. In Senge et al., *The fifth discipline field book: Strategies and tools for building a learning organization* (pp. 59-64). New York, NY: Doubleday.
- Ross, J. A., & Bruce, C. D. (2007). Professional development effects on teacher efficacy: results of randomized field trial. *Journal of Educational Research*, 101(1), 50–60.
- Rowan, B., Correnti, R., & Miller, R. (2002). What large-scale, survey research tells us about teacher effects on student achievement: Insights from the "prospects" study of elementary schools. *Teachers College Record*, 104(8), 1525–1567.
- Saldaña, J. (2009). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage Publications.
- Schleicher, A. (2015). Strengthening teacher's sense of effectiveness. *Education Journal* 43(1), pp. 1-33.
- Schmoker, M. (2004). Tipping Point: From feckless reform to substantive instructional improvement. *Phi Delta Kappan*, 85(6), 424–432.
- Schmoker, M. (2005). No turning back: The ironclad case for professional learning communities. In R. DuFour, R. Eaker, & R. DuFour (Eds.), *On common ground: The power of professional learning communities*. Bloomington, IN: National Educational Service.
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Doubleday Currency.
- Senge, P. (2000). *Schools that learn: A fifth discipline fieldbook for parents, educators, and everyone who cares about education*. New York, NY: Doubleday.
- Senge, P. (2006). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Random House.

- Senge, P., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J., & Kleiner, A. (2012). *Schools that learn*. New York, NY: Crown Business.
- Sergiovanni, T. J. (1992). *Moral leadership: Getting to the heart of school improvement*. San Francisco, CA: Jossey-Bass.
- Sergiovanni, T. J. (2004). Collaborative cultures and communities of practice. *Principal Leadership*, 5(1), 48–52.
- Servage, L. (2008). Critical and transformative practices in professional learning communities. *Teacher Education Quarterly*, 35(1), 63–77.
- Shaughnessy, M.F. (2004). An interview with Anita Woolfolk: The educational psychology of teacher efficacy. *Educational Psychology Review*, 16(2), 153–176.
- Solutiontree. (n.d.). Solutiontree.com
- Southwest Educational Development Laboratory - SEDL (1998). Creating a Professional Learning Community: Cottonwood Creek School. Issues about Change 6(2).
- Sparks, D. (1984). Staff Development and School Improvement: An Interview with Ernest Boyer. *Journal of Staff Development*, 32-39.
- Starnes, B.A., Saderholm, J., & Webb, A. (2010). A community of teachers. *Phi Delta Kappan*, 92(2), 14–18.
- Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional Learning Communities: A review of the literature. *Journal of Educational Change*, 7(4), 221–258.
- Strahan, D. (2003). Promoting a collaborative professional culture in three elementary schools that have beaten the odds. *The Elementary School Journal*, 104(2), 127–146.
- Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stake, R. (2006). *Multiple case study analysis*. New York: The Guilford Press.

Sweeney, D. (2010). *Learning along the way: Professional development by and for teachers*. Portland, ME: Stenhouse.

Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education*, 17, 783-805.

Timperley, H. (2006). *Shifting the focus: Achievement information for professional learning: A summary of the sustainability of professional development in Literacy – Parts 1 and 2*.

Retrieved January 27, 2007, from

<http://www.minedu.govt.nz/index.cfm?layout=document&document id=8368&data=1>

Thompson, S.C., Gregg, L., & Niska, J. M. (2004). Professional learning communities, leadership, and student learning. *Research in Middle Level Education online*, 28(1), 1–15.

Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24(80-91).

Von Glasersfeld, E. (2005). *Introduction: Aspects of constructivism*. In C. T. Fosnot (Ed.), *Constructivism: theory, perspectives, and practice* (2nd ed., pp. 3–7). New York, NY: Teachers College Press.

Waldron, N.L., & McLeskey, J. (2010). Establishing a collaborative school culture through comprehensive school reform. *Journal of Educational & Psychological Consultation*, 20(1), 58–74.

Wahlstrom, K., & Louis, K.S. (2008). How teachers experience principal leadership: The roles of professional community, trust, efficacy, and shared responsibility. *Educational Administration Quarterly*, 44(4), 458–495.

- Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. Dallas, TX: National Staff Development Council.
- Willerman, M., McNeely, S. L., & Koffman, E. C. (1991). *Teachers helping teachers: Peer observation and assistance*. New York, NY: Praeger.
- Williams, M. (2010). *Teacher collaboration as professional development in a large, suburban high school*. College of Education and Human Sciences. Retrieved <http://digitalcommons.unl.edu/cehdsdiss>
- Wood, D.R. (2007). Professional learning communities: Teachers, knowledge, and knowing. *Theory Into Practice*, 46(4), 281–290.
- Yin, R. K. (2003). *Case study research: Designs and methods*. Thousand Oaks, CA: Sage Publications.
- Yin, R. K. (2009). *Case study research design and methods* (4th edition). Los Angeles, CA: Sage Publications.

Appendix A: Participant Information Letter

Concordia University

Doctoral Studies Program Study: A Case Study of the Impact of Professional Learning
Communities on Teacher Efficacy and Professional Growth

My name is Rebecca Carter-Blignaut and I am a doctoral student at Concordia University. I am requesting teachers to participate in a case study of teachers' perceptions of professional learning communities. Your participation is very valuable to the study and will help determine the overall effectiveness of professional learning communities. You have been specifically invited to participate because of your current involvement in a professional learning community. The insights that you can provide will assist in developing a thorough understanding of teachers' perceptions of professional learning communities. By sharing your experiences, you will also have the opportunity to reflect on the impact that professional learning communities have had on you as a teacher.

Individual interviews will be conducted. Responses from these will be used as a part of a research project; however, your participation in the study and responses to the questions will be kept anonymous. Your identity and involvement in the study will not be revealed at any time. Each participant and the name of the school will be assigned a pseudo name for the purpose of research. This allows you to share your honest feelings about professional learning communities. It is imperative to the study that all of your responses reflect how you truly feel.

Over the course of several weeks, I will spend time talking with you about your insights and perceptions of professional learning communities. Individual interviews will be held at a time that is convenient for you and your schedule. The interview session will last no longer than 90 minutes. During the interview, I will ask a set of general questions about your participation in

a professional learning community. For documentation purposes, I will record the conversation and take notes during the interviews. The recording will allow me to accurately capture the conversations.

There are no right or wrong answers to the questions that will be asked. Your impressions, reflections, and thoughtful answers are very important to the study. I want to gain an in-depth understanding of your perceptions of professional learning community and whether or not it has impacted you as a teacher in the area of self-efficacy.

Your participation is valuable; however, you can decide at any time that you do not want to participate in the study and I will respect your decision. I appreciate your willingness to consider participating in the study.

If you are willing to participate in this study, please respond with the following information: your name, school name, grade level(s) taught, gender, number of years teaching experience, country of origin and the following age group to which you belong: under 30, 31-39, 40-49, over 50. This information will be kept on a password protected USB and deleted from my email. Five participants who make up a diverse set of participants from the above information will be selected to participate. The selection process will be complete within 3 weeks of sending this email. If selected, you will be sent a consent form. After signing and returning the informed consent, additional information on the process of the study will be shared with you. All information will be kept on a password protected USB and any e-copy deleted.

Thank you so much for your willingness to consider participation in this study. Please feel free to call or email me if you have any questions that need clarification.

Sincerely,

Rebecca Carter-Blignaut

Phone: [Researcher phone number redacted]

Email: [Researcher email redacted]

Appendix B: Participant Consent Form

Concordia University Doctoral Studies Program Informed Consent

Study: A Case Study of the Impact of Professional Learning Communities on Teacher Efficacy and Professional Growth

Rebecca Carter-Blignaut ([Researcher email redacted]), doctoral student under the supervision of Dr. Julie McCann (Committee chair email redacted), is requesting your participation in a research study entitled A Case Study of the Impact of Professional Learning Communities on Teacher Efficacy. The intent of the case study is to gain information regarding the impact, if any, that Professional Learning Communities have on teacher self-efficacy.

1. The purpose of the study is to examine and gain insight into teachers' perceptions on the impact of PLCs on teacher self-efficacy and whether or not teachers view their participation in a professional learning community as an opportunity that promotes and encourages professional development.
2. A small group of teachers from IB World Schools will be asked to complete an online survey that involves reading approximately 45 statements and choosing if they agree or disagree.
3. These teachers will be asked to participate in an individual interview that will last no more than an hour and a half.
4. If at any time during the study you are uncomfortable answering any of the questions please feel free to decline a response or stop the interview. The design of the study has been created to minimize the risk to any participant.
5. The findings of such a study would contribute to the field of education by developing a more beneficial Professional Learning Community style, discovering new ways to

increase teacher self-efficacy and creating a more effective and beneficial professional growth plan for teachers. The insight obtained through this research could also provide vital information to improve the implementation of PLCs and addressing the need for continuous teacher education.

6. The results of the study will be published in my dissertation. The names of the participants, the schools and their specific locations will not be revealed in the study. For the purpose of the study, pseudonyms will be assigned by the researcher to each participant and school. Actual participant names or names of schools will not be revealed by the researcher at any time. All transcripts and data collected will be kept in a secured area available only to the researcher.
7. Any questions about the study should be referred to Rebecca Carter-Blignaut whose email address is listed above.
8. Your participation in the study is voluntary and will not be compensated. You are free to withdraw from the study at any time.

Participant's Permission

I have read and understand the Informed Consent and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent:

_____ Date_____

Participant's Signature

Should I have any questions about this research or its conduct, I may contact:

Rebecca Carter-Blignaut at [Researcher email redacted]

Appendix C: Professional Learning Community Assessment-Revised (PLCA-R)

The Professional Learning Community Assessment-Revised (PLCA-R) measures perceptions of school practices as they relate to the six dimensions of a Professional Learning Community and its attributes. Participants respond to a 4-point scale to indicate if they strongly agree, agree, disagree, or strongly disagree with each statement.

The online questionnaire via SEDL, an affiliate of American Institutes for Research, allows data to be gathered, viewed, and graphed. Permission is not needed to use this instrument via the website. Scores for each participant and each dimension are reported. Below is a copy of the questionnaire that was delivered online.

Directions: This questionnaire assesses your perceptions about your principal, staff, and stakeholders based on the five dimensions of a professional learning community (PLC) and related attributes. There are no right or wrong responses. This questionnaire contains a number of statements about practices that occur in some schools. Read each statement and then use the scale below to select the scale point that best reflects your personal degree of agreement with the statement. Shade the appropriate oval provided to the right of each statement. Be certain to select only one response for each statement.

Key Terms:

1. # Principal = Principal, not Associate or Assistant Principal
2. # Staff = All adult staff directly associated with curriculum, instruction, and assessment of students
3. # Stakeholders = Parents and community members
4. Scale: 1 = Strongly Disagree (SD) 2 = Disagree (D) 3 = Agree (A) 4 = Strongly Agree (SA)

Shared and Supportive Leadership

1. Staff members are consistently involved in discussing and making decisions about most school issues. ____SD ____D ____A ____SA

2. The principal incorporates advice from staff to make decisions.

____SD ____D ____A ____SA

3. Staff members have accessibility to key information.

____SD ____D ____A ____SA

4. The principal is proactive and addresses areas where support is needed.

____SD ____D ____A ____SA

5. Opportunities are provided for staff to initiate change.

____SD ____D ____A ____SA

6. The principal shares responsibility and rewards for innovative actions.

____SD ____D ____A ____SA

7. The principal participates democratically with staff sharing power and authority.

____SD ____D ____A ____SA

8. Leadership is promoted and nurtured among staff.

____SD ____D ____A ____SA

9. Decision-making takes place through committees and communication across grade and subject areas. ____SD ____D ____A ____SA

10. Stakeholders assume shared responsibility and accountability for student learning without evidence of imposed power and authority.

____SD ____D ____A ____SA

11. Staff members use multiple sources of data to make decisions about teaching and learning.

Shared Values and Vision

12. A collaborative process exists for developing a shared sense of values among staff.

____SD ____D ____A ____SA

13. Shared values support norms of behavior that guide decisions about teaching and learning.

____SD ____D ____A ____SA

14. Staff members share visions for school improvement that have an undeviating focus on student learning. ____SD ____D ____A ____SA

15. Decisions are made in alignment with the school's values and vision.

____SD ____D ____A ____SA

16. A collaborative process exists for developing a shared vision among staff.

____SD ____D ____A ____SA

17. School goals focus on student learning beyond test scores and grades.

____SD ____D ____A ____SA

18. Policies and programs are aligned to the school's vision.

____SD ____D ____A ____SA

19. Stakeholders are actively involved in creating high expectations that serve to increase student achievement. ____SD ____D ____A ____SA

20. Data are used to prioritize actions to reach a shared vision.

____SD ____D ____A ____SA

Collective Learning and Application

21. Staff members work together to seek knowledge skills, and strategies and apply this new learning to their work. ____SD ____D ____A ____SA

22. Collegial relationships exist among staff that reflect commitment to school improvement efforts. ____SD ____D ____A ____SA

23. Staff members plan and work together to search for solutions to address diverse student need. ____SD ____D ____A ____SA

24. A variety of opportunities and structures exist for collective learning through open dialogue. ____SD ____D ____A ____SA

25. Staff members engage in dialogue that reflects a respect for diverse ideas that lead to continued inquiry. ____SD ____D ____A ____SA

26. Professional development focus on teaching and learning. ____SD ____D ____A ____SA

27. School staff and stakeholders learn together and apply new knowledge to solve problems. ____SD ____D ____A ____SA

28. School staff is committed to programs that enhance learning. ____SD ____D ____A ____SA

29. Staff members collaboratively analyze multiple sources of data to assess the effectiveness of instructional practices. ____SD ____D ____A ____SA

30. Staff members collaboratively analyze student work to improve teaching and learning. ____SD ____D ____A ____SA

Shared Personal Practice

31. Opportunities exist for staff to observe peer and offer encouragement. ____SD ____D ____A ____SA

32. Staff members provide feedback to peers related to instructional practices. ____SD ____D ____A ____SA

33. Staff members informally share ideas and suggestions for improving student learning.

____SD ____D ____A ____SA

34. Staff members collaboratively review student work to share and improve instructional practices. ____SD ____D ____A ____SA

35. Opportunities exist for coaching and mentoring.

____SD ____D ____A ____SA

36. Individuals and teams have the opportunity to apply learning and share the results of their practices. ____SD ____D ____A ____SA

37. Staff members regularly share student work to buide overall school improvement. ____SD
____D ____A ____SA

Supportive Conditions – Relationships

38. Caring relationships exist among staff and students that are built on trust and respect.

____SD ____D ____A ____SA

39. A culture of trust and respect exist for taking risks.

____SD ____D ____A ____SA

40. Outstanding achievement is recognized and celebrated regularly in our school.

____SD ____D ____A ____SA

41. School staff and stakeholders exhibit a sustained and unified effort to embed change into the culture of the school. ____SD ____D ____A ____SA

42. Relationships among staff members support honest and respectful examination of data to enhance teaching and learning. ____SD ____D ____A ____SA

Supportive Conditions – Structures

43. Time is provided to facilitate collaborative work.

_____SD _____D _____A _____SA

44. The school schedule promotes collective learning and shared practice.

_____SD _____D _____A _____SA

45. Fiscal resources are available for professional development.

_____SD _____D _____A _____SA

46. Appropriate technology and instructional materials are available to staff.

_____SD _____D _____A _____SA

Statements

47. Resource people provide expertise and support for continuous learning.

_____SD _____D _____A _____SA

48. The school facility is clean, attractive, and inviting.

_____SD _____D _____A _____SA

49. The proximity of grade level and department personnel allows for ease in collaborating with colleagues.

_____SD _____D _____A _____SA

50. Communication systems promote a flow of information among staff.

_____SD _____D _____A _____SA

51. Communication systems promote a flow of information across the entire school community including: central office personnel, parents, and community members.

_____SD _____D _____A _____SA

52. Data are organized and made available to provide easy access to staff members.

____SD ____D ____A ____SA

Comments:

Appendix D: Individual Interview Questions

Introduction: I would like to thank you participating in the interview today to share your thoughts and ideas about Professional Learning Communities. My name is Rebecca Blignaut and I appreciate the time you are giving to assist me with my research. There are no right or wrong answers to the set of guiding questions I will ask so please simply answer as honestly and with as much detail as you can. Please feel free to ask for clarification in necessary. Do you have any questions for me now? (Pause for answer) My first question is...

Guiding Individual Interview Questions

1. What have been some of the topics of your professional study groups? Were the topics beneficial to your growth as a professional? Why or why not?
2. How does your school incorporate professional development?
3. What are your perceptions of the Professional Learning Communities that you have participated in at your school?
4. Discuss the opportunities that you have experienced as a result of being a part of a Professional Learning Community.
5. Has being a part of a Professional Learning Community made a difference for you as a professional or in your teaching practice? If so, in what way?
6. What are some of the successes and challenges of implementing a Professional Learning Community at your school?
7. How has the approach to professional development changed since the implementation of Professional Learning Communities?
8. What opportunities do you think you would have experienced without the organization of the Professional Learning Community at your school?

9. Tell me about something that you learned from your participation in a Professional Learning Community? Did it make a difference in your teaching? Explain your response.

10. What are the opportunities for professional growth in your school *If someone indicates collaborative relationships ask: How do staff members go about collaborating with each other?

11. Have you grown as a professional since your involvement with a professional learning community? Why or why not? *If yes.* . . Can you provide some examples that would support that you have grown? If not mentioned, ask Do you think the Professional Learning Community has impacted your teaching practice? If so, how? If not, why not?

Appendix E: Teacher Self-Efficacy Scale (TSES)

Teachers' Sense of Efficacy is the beliefs in their capability to make a difference in student learning, to be able to get through even to students who are difficult or unmotivated. The Teacher Sense of Efficacy Scale asks teachers to assess their capability concerning instructional strategies, student engagement, and classroom management. Permission to use this instrument was granted from Anita Woolfolk Hoy, PhD, via Ohio State University.

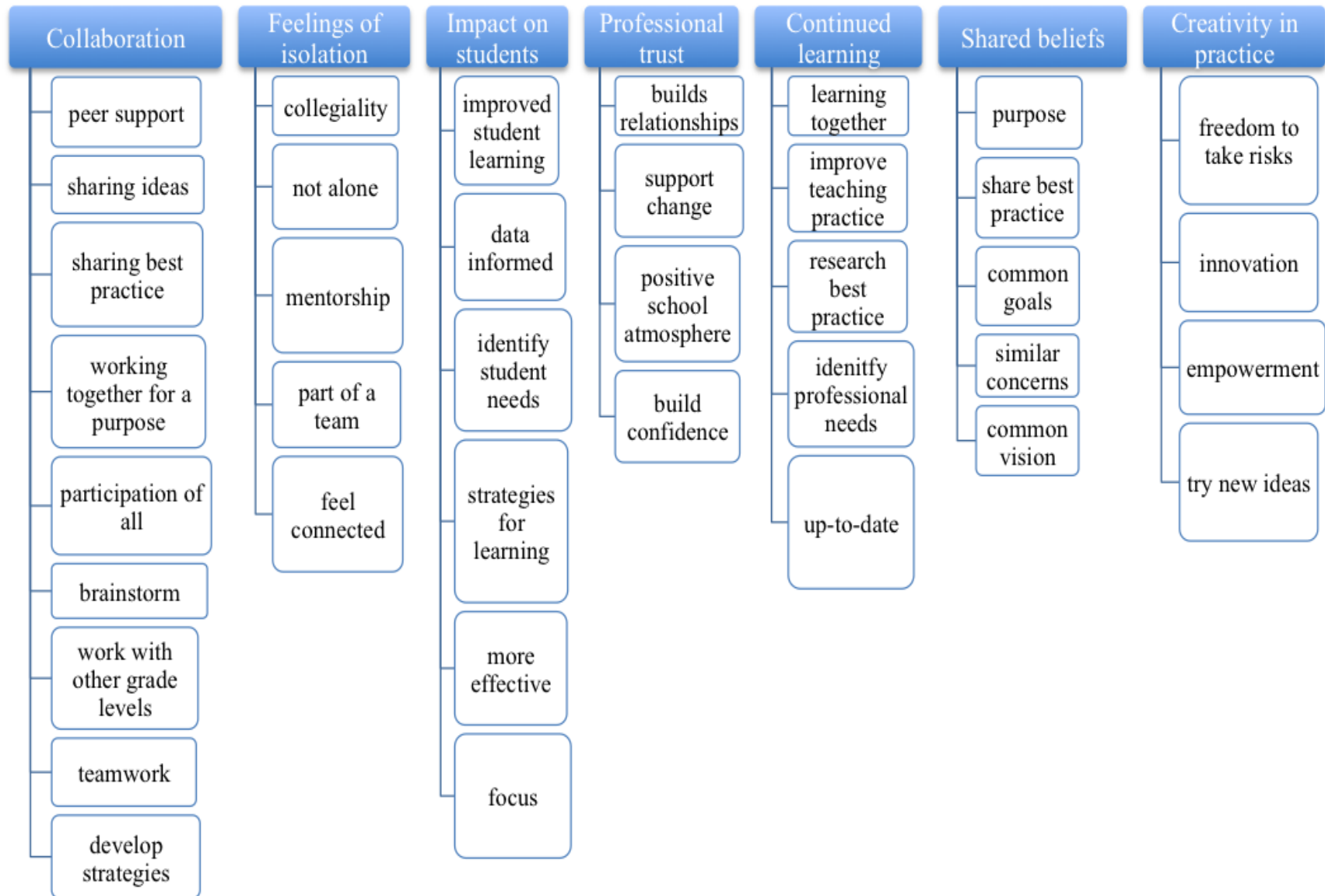
The questionnaire is designed to gain a better understanding of the kinds of things that create challenges for teachers. It uses a 9-point system to include a range of choices: None at all, Very little, Some degree, Quite a bit, and A great deal. The long form which includes the following 24 questions will be used.

1. How much can you do to get through to the most difficult students?
2. How much can you do to help your students think critically?
3. How much can you do to control disruptive behavior in the classroom?
4. How much can you do to motivate students who show low interest in school work?
5. To what extent can you make your expectations clear about student behavior?
6. How much can you do to get students to believe they can do well in school work?
7. How well can you respond to difficult questions from your students?
8. How well can you establish routines to keep activities running smoothly?
9. How much can you do to help your students value learning?
10. How much can you gauge student comprehension of what you have taught?
11. To what extent can you craft good questions for your students?
12. How much can you do to foster student creativity?
13. How much can you do to get children to follow classroom rules?
14. How much can you do to improve the understanding of a student who is failing?
15. How much can you do to calm a student who is disruptive or noisy?
16. How well can you establish a classroom management system with each group of students?
17. How much can you do to adjust your lessons to the appropriate academic level for individual students?
18. To what extent can you use a variety of assessment strategies?
19. How well can you keep a few problem students from ruining an entire lesson?
20. To what extent can you provide an alternative explanation or example when students are confused?

21. How well can you respond to defiant students?
22. How much can you assist families in helping their children do well in school?
23. How well can you implement alternative strategies in your classroom?
24. How well can you provide appropriate challenges for very capable students?

Comments:

Appendix F: Categories and Subcategories of the Data



Appendix G: Subcategories from Interview Data

Table 6

Sub-Categories from Interview Coding

sharing ideas and best practice	improved teaching practice	improved learning for students	collegiality	isolation	working together for a purpose	professional learning	creative
collaboration	modeling	research	learning together	feel I'm not alone	efficiency	support change	innovative
participation of all common goals	accountability put ideas into practice	data informed identifying student/professional needs	builds relationships	share practice	shared goals shared practice	empowerment	try new ideas
working with other grade levels mentoring	strategies for challenging learners research best practice	role of the teacher ways to improve learning student improvement			trust		
brainstorming							

Appendix H: Statement of Original Work

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously-researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

Statement of academic integrity.

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

Explanations:

What does “fraudulent” mean?

“Fraudulent” work is any material submitted for evaluation that is falsely or improperly presented as one’s own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate’s final work without full and complete documentation.

What is “unauthorized” assistance?

“Unauthorized assistance” refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another’s work during an online test

- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.

Statement of Original Work

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University-Portland Academic Integrity Policy during the development and writing of this dissertation.

Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*

Digital Signature:

Name (Typed): Rebecca S Carter

Date: July 18, 2017